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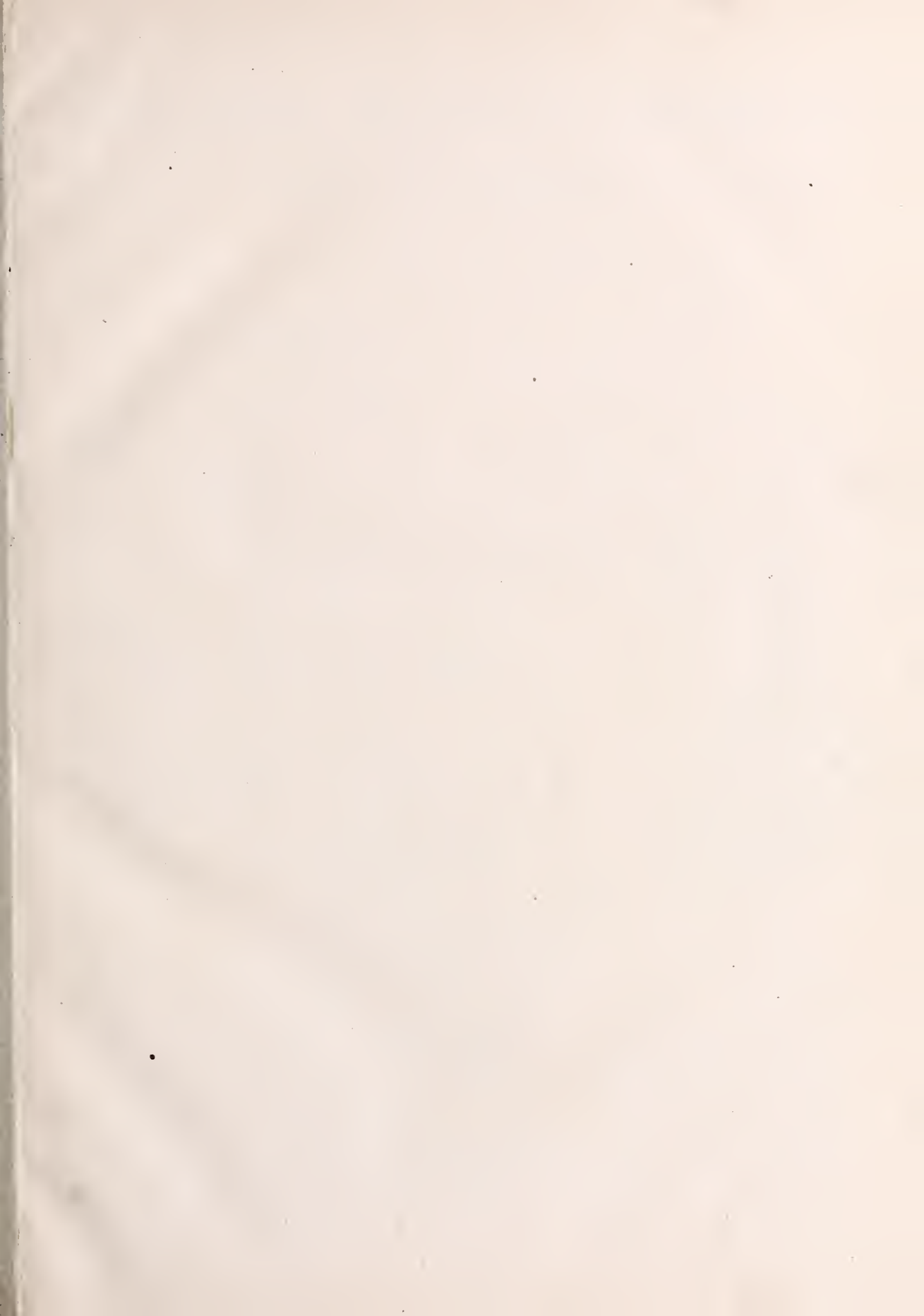
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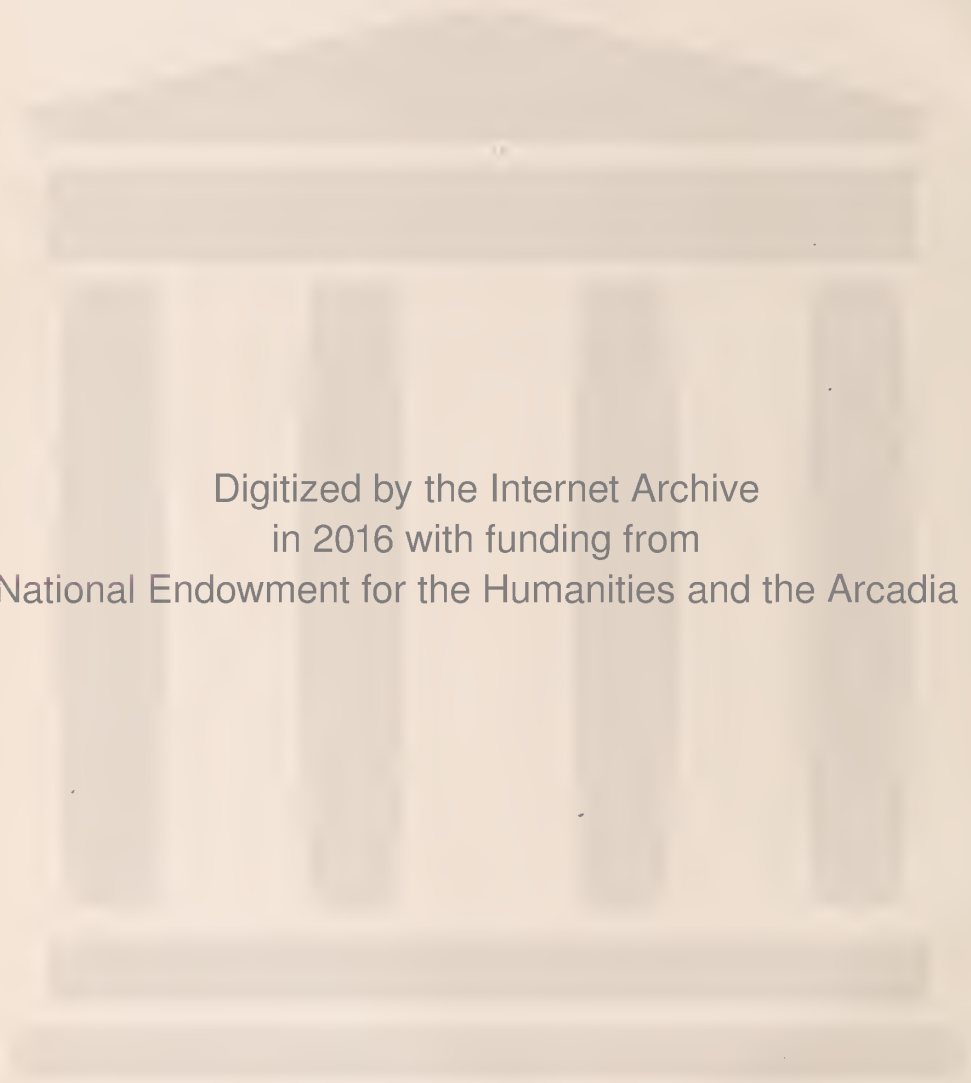
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Original Communications.

FIBROID TUMORS AND RADIUM.

By HOWARD A. KELLY, M. D., Baltimore, Md.

A fibroid tumor of the uterus may usually with certainty be labelled benign; it is apt to cause trouble either by its size or by hemorrhages which it produces. The incidence of malignancy is small and can almost always be excluded by a thorough curettage with a histological examination.

Complication of the tubes and ovaries, appendix and gall bladder are sometimes found in tumors of long standing. However, as lateral inflammatory disease can be discovered by a thorough examination and appendicitis and cholelithiasis may be known or strongly suspected from the clinical history of the patient, it is possible to make sure beforehand whether or not we are dealing with a simple fibroid of the uterus.

The method of treating such growths up to the present time has been surgical and has become in skilled hands one of the safest of our major operations. Taking cases as they run, however, handled by the skilled and the unskilled, the risk is still considerable. A skilled surgeon will avoid hemorrhage and sepsis but he will be powerless against an embolism. Then there is always danger of delayed convalescence, post-operative suppurations, hematoma and infections of the stump, hernias and prolapsus of the vaginal vault, to say nothing of pneumonia. Moreover, the radical surgical treatment is a major operation of a mutilating character. For these reasons, it has been my rule for

many years past only to operate where there was persistent hemorrhage, or pain, where pressure symptoms were acute, or where there was good evidence of a complicating condition in the abdomen.

I wish to present here a comparatively new, non-surgical method of treatment which will favorably affect practically every uncomplicated fibroid tumor of whatever size, stopping hemorrhages together with menses, shrinking the tumor or causing it to disappear. Sometimes menstruation will return a year or two after the treatment; it is then scant or nearly normal.

Between March 23, 1913, and January 12, 1918, two hundred and eleven cases of uterine fibroid were treated with radium by Dr. Curtis F. Burnam and myself. During this same period of time forty-five cases were operated on and not radiated. The cases excluded from radiation and the reason for operation may be tabulated as follows:

Ovarian cyst.....	9 cases
Appendicitis	7 cases
Pelvis choked by big tumor, intra-uterine radiation impossible.....	6 cases
Severe pain.....	5 cases
Adhesions	4 cases
Operation preferred.....	4 cases
To preserve uterus in young women, myomectomy done.....	2 cases
Gall stones.....	2 cases
Pelvic inflammatory disease.....	2 cases
Cæsarean section.....	1 case
Repair right inguinal hernia.....	1 case
Prolapse	1 case
Extra-uterine pregnancy suspected.....	1 case
Total.....	45 cases

Not all these conditions would to-day be excluded from radiation.

For convenience we have divided the 211 patients treated with radium into: Group

1, those 40 years of age and over (148 cases:)
Group 2, those under 40 years (63 cases).

Group 1. At this time 62 are entirely cured, the tumor either having completely disappeared or dwindled to negligible size; in 46 the tumor has diminished; in 10 the patients are so well that they never consented to a further examination. The second division is 2-3 composed of recent cases and is continually augmenting the first division..

Two cases are reported unimproved by treatment but in each but one treatment was given and radium was not tested out. Three operations were done after radiation, one because of an ovarian cyst, two because the reduction of the tumor was not quick enough. Two patients died of causes unconnected with the treatment—apoplexy in a woman of 45, and exhaustion in a severe bleeding case. Six did not return for treatment, eight were lost sight of, 9 are too recent for results.

Setting aside the cases where data are insufficient, those who died from other causes, and those with complications, we have 120 cases of simple fibroid; in 118 of these radium was found efficient.

The effect of radiation is sometimes to stop menstruation at once. Most usually, however, there is one menstrual period before amenorrhoea is brought on, and sometimes there may be 2 or more. Menopausal symptoms during amenorrhoea caused by radium are not severe. In about 50 per cent. no menopausal symptoms were complained of, in about 25 per cent they were moderate, and in about 25 per cent. severe.

Group 2. The 63 cases of fibroid tumor in women under 40 were, as a rule, treated with temporary cessation of menstruation in view, or occasionally to reduce menstruation. In 25 the tumor has disappeared or practically disappeared; in 16 it has decreased; 4 are well and have not been examined.

Five operations were performed: one because of a calcified uterus; two because operation was preferred to other treatment; two because of ovarian trouble. Four cases have not reported; four withdrew from treatment; and 5 are too recent for results.

Summary. The average age of all the 211 patients treated was 43 years, the oldest was 67, the youngest 26. Menorrhagia, metror-

rhagia or both were symptoms in 161 cases, while in 50 bleeding was not a symptom.

Tumor gone or practically gone	87 cases
Tumor diminished	62 cases
Symptomatically well, no examination	14 cases
Unimproved (complicated)	2 cases
Operation after radiation	8 cases
Died other causes	2 cases
Did not complete treatment	10 cases
No report	12 cases
Too early for results	14 cases
Total	211 cases

Putting aside the 38 cases in which the data is insufficient, and the 6 cases which were complicated by other trouble, we have left only 4 cases in which radium was unsuccessful, in two operation was requested rather than further treatment, and in two the reduction of the fibroid was not rapid enough.

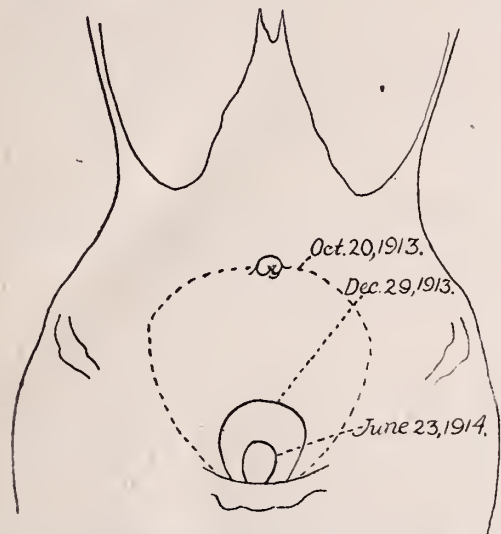
The technique of the treatment is simple. It consists of a preliminary curettage; the use of a polyp forceps to remove any pedunculate growth; the insertion of 300 to 500 milluries of emanation of radium covered with a rubber cot on the end of a sound into the uterus, where it is allowed to remain for about 3 hours. One treatment may be all that is necessary or a second may be required after several months. For this an external treatment may be substituted, consisting of one or more grams of radium suitably filtered applied over various areas of the abdomen for several hours.

The inside treatment is no more painful than the introduction of a sound into the uterus for any other purpose. The outside treatment is painless and in competent hands causes no irritation of the skin whatever. The immediate results are nausea for about 24 hours and abdominal tenderness for several days. Sometimes there is a leucorrheal discharge for a few weeks. The symptoms above enumerated have been much less marked when large amounts of radium are used for comparatively short times.

From the foregoing cases we are clearly justified in concluding that radium is the treatment of choice in uncomplicated fibroid tumors of the uterus. In the exceptional case, where radium may prove ineffective because of some unforeseen complication, an operation may be resorted to without any added difficulty on account of the previous radiation.

Two typical cases follow in more detail.

Case 1. Mrs. C. E. D. (40 yrs.) Admitted Oct. 20, 1913.



Oct. 20, 1913. Tumor reaching umbilicus.
Dec. 29, 1913. Size of medium-sized orange.
June 23, 1914. Still perhaps a small fibroid present but certainly nothing that can give any trouble.

Diagnosis:—Uterine fibroids; slight menorrhagia.

Examination:—Large fibroid tumor outlined in crinolin rising as high as umbilicus. Has been present 2 years and seems to be growing fairly rapidly.

Symptoms:—Slight increase in menstruation; no other disturbance.

Treatment:—Oct. 20, 1913, 60 mgs. radium element intra-uterine for 26 hrs.; 60 mgs. radium element on abdomen 11½ hrs.

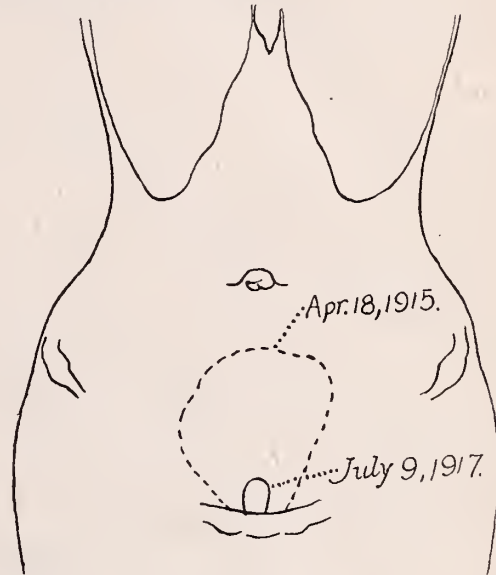
Results:—Patient had usual nausea and discomforts for 24 hours, but no further inconvenience. In November she had a regular menstrual period, a little less than normal; no pain. No menstrual period in December and none in January. December 29, she was examined by her physician who found uterus the size of a medium sized orange entirely within pelvis. June, 1914, she was examined and the following note made: "There is still perhaps a small fibroid present, but certainly nothing that can give any trouble."

Case 2. Mrs. D. T. (35 yrs.) Admitted April 8, 1915.

Diagnosis:—Multiple fibroids of uterus; menorrhagia.

Symptoms:—Excessive menstruation and frequency of urination.

Examination:—Multiple fibroids of uterus reaching 2-3 way to umbilicus. Tumor known to have existed 3 years.



April 8, 1915. Fibroid reaching two-thirds to umbilicus.
July 9, 1917. No tumor.

Treatment:—April 8, 1915, 510 mgs. radium for 3 hrs. intra-uterine.

Results:—Menstruation was stopped and had not returned when last heard from in July, 1917. July 9, 1917, patient writes that her doctor had examined her and found no tumor. She was well but suffering with severe hot flushes.

1418 Eutaw Place.

ROENTGEN-RAY LESIONS.*

By E. T. BRADY, M. D., Pittsburgh, Pa.

It is often hazardous to express plain facts. Particularly is this true, when those facts are admissions that there may be drawbacks to one's especial line of work. I feel sure, however, that before so discriminating a body as this, there is no danger of being misinterpreted. There is much both in the immediate and secondary effects of the Roentgen-ray, which is still mysterious, and of what is known, a great deal is still *sub judice*, so, in epitomizing the present status of the subject, I do it in hope that it may present in a clearer light to those of you who are without direct experience, a subject of which you have only had impressions gathered from haphazard mention in your general reading.

*Read before the Roanoke (Va.) Academy of Medicine, February 4, 1918.

It may not be amiss to remind you that Roentgen-ray lesions have rapidly declined both in number and severity, notwithstanding the fact that Roentgen-ray applications have multiplied enormously.

The pioneers in this field were handicapped, not only by the lack of knowledge which only experience can bring, but also by the inadequate apparatus and equipment which initiates every experimental foray.

To their credit be it said, that, while there were many sufferers at their hands, there was no suffering on the part of their patrons compared with that of the operators themselves, for of those earnest pioneers it is a matter of record that all suffered, and most have died as a result of their investigations. They were true martyrs to the cause of humanity and their heroism was no less admirable because it was not exploited. Their reward lies only in the boon which their high endeavor has brought to the many to-day.

The cases which most of you have seen have been old lesions, originating in those pioneering years. Many of these have been so severe, and so harrowing were tales which, under the magnification of "Madam Grundy's" distorted vision and superlative adjectives, accompanied them, that you have doubtless been most unfavorably impressed.

Fortunately, of late you have heard of fewer and fewer cases, and you can now offer the promise of reasonably prompt and efficient relief. The Roentgen-ray sequelae, which are of sufficient gravity to be styled lesions, may be briefly classified as follows:

- 1st. Roentgen ray keratoses.
- 2nd. Roentgen dermatitis.
- 3d. Roentgen ulcers, or "white gangrene."
- 4th. Carcinoma developing in scars and cicatrices.

You have doubtless wondered why I have not used the word *burn* in this classification. It is because I would impress upon you emphatically, and I hope ineradicably, that, in the bright lexicon of Roentgenography, there is no such word as burn. The word should be absolutely debarred from any discussion of Roentgen work. The term was first applied because the appearance of the lesions resembled burns and the pain was somewhat similar. The resemblance ended there. The

pain of a burn is relieved by protection and time; the destroyed tissue sloughs, and the tendency to repair is present. In Roentgen lesions, on the contrary, the pain, when present, is persistent, yields to no application, there is no tendency to slough, and no tendency to reparative processes.

Considering the lesions seriatim, we begin with—

Roentgen Keratoses. These, as the term denotes, consist of a hardening of the skin, manifested by a general thickening of the epithelial layer. Accompanying this we have warty growths, fissures, some oedema, and lessened sensitiveness. Frequently it takes the form of dirty brownish or yellowish patches exactly similar to those found in the ordinary form of simple senile keratosis. The lesions are practically limited to the surfaces, such as face, neck, and hands, which are not covered by clothing. We might well speak of the condition as an "*induced keratosis*," thus, perhaps, the better impressing the fact, which is well known, that "Every senile keratosis is a potential epithelioma", paraphrasing it to read that "Every Roentgen keratosis is a potential carcinoma". Why this should be true, is not known. We know that ordinary senile keratoses rarely become malignant except in the uncovered areas, or in those exposed to frictional irritation from clothing, habit, or occupation. Exposed surfaces are, naturally, most liable to all infections, and it is still a matter for conjecture whether the pre-cancerous irritation has as its determining factor an infectional origin, or whether it is but a step in the developmental progress of the pathological process. The former is much more probable.

This class of cases is practically limited to Roentgen workers, and is, therefore, of minor interest to you, except that you may be the better enabled to advise as to the management of such cases as you do see. A few cases will be met with following treatment for lupus, keloid, eczema, and like cases where superficial radiation is applied.

Since the custom of appropriate filtration with non-penetrating protective material for surrounding areas, has become universal, the number will be negligible. The increasing use of the fluoroscope necessitated in latter day diagnosis of gastro-intestinal and thor-

acid conditions,—and the increased use of the smaller apparatus, now flooding the market, is beginning to show that proverbial lack of precaution invariably displayed by the novice. I hope a word to the wise is sufficient. There is but one treatment of these keratoses. Non-interference unless painful, and prompt excision of the entire surface involved as soon as discomfort manifests itself. Ordinarily the condition is superficial, and the excised areas can be covered by Thiersch grafts. Should these fail to adhere, it simply means that the excision has not been complete, and this should be remedied before again grafting.

We now consider—

Roentgen Dermatitis. This condition is really not a lesion, and I only include it in my classification because it was once styled, and, alas is still too frequently alluded to by even physicians, as a “first degree burn”. Many physicians, being consulted as to the condition immediately following radiation, thoughtlessly, and even cheerfully, say “why that is a little X-ray burn, and don’t amount to anything”. To the Roentgenographer this is “the most unkindest cut of all”, because the layman, who has heard the distorted mouthings of the peripatetic sewing circles, pictures to himself horrible torture and prepares for death or a damage suit.

Roentgen dermatitis is simply reactionary, localized, erythematous oedema, limited in area to the part exposed within the diaphragm of the instrument used, and unprotected by ray-proof material. It is evanescent, usually making its appearance from 18 to 36 hours after radiation, and disappearing within 48 hours. It is readily relieved by applying by either spray or mop, any alkaline solution. A teaspoonful of soda bicarbonate to 8 ounces of water is convenient and satisfactory. The reddened area should be neither rubbed nor irritated. This dermatitis is usually accompanied by depilation of the affected area. This, too, is temporary, a new growth of hair soon appearing. Not infrequently there is pigmentation, either freckle-like, or larger bronzed spots. These are pliable and gradually fade. This whole condition is a simple normal reaction to the ray, is desired by most operators, being considered an index of dosage, the “depilatory

dose” being the standard by which applications are gauged. The reaction does not occur in massive dose treatments, because, in them the irritating rays are eliminated by use of appropriate filters. Treatment of superficial lesions often requires these rays which are so irritant to the skin.

Roentgen Ulcers Or “White Gangrene” constitute the lesions you have seen and heard most of. They were formerly called second and third degree burn. While some are larger, deeper, and more extensive than others, the question of degree is of little importance. All are serious, and the management is the same. The condition follows prolonged or frequently repeated raying, without appropriate or sufficient filtration. Idiosyncrasy has been held by some to account for the effect, but the general opinion is, that while the idiosyncrasy of complexion may play some part in the reactionary dermatitis, it is not a considerable factor in ulcer formation.

The lesion consists in a complete destruction of skin circulation, accompanied by a dirty, whitish, moist, diphtheritic ulcer. This usually appears within ten days to three weeks after raying, though it may be delayed for months. It is generally believed that the later the appearance, the more intractable. It is exquisitely sensitive to touch, and may be, indeed, generally is, quite painful without being touched. The pain when present is persistent, yields to no applications, and is obstinately chronic in spite of treatment. It is always limited when proper protection is used, though when protection is insufficient, and raying prolonged, as in fluoroscopy, hopelessly large areas may be involved. After a short time all involved tissue becomes hardened, and so dense and friable as to be difficult to cut, and impossible to hold stitches. It has a dead ivory appearance, and is styled “white gangrene”.

It is not a true gangrene, because the tissues are not actually dead. They contain just sufficient circulation to prevent sloughing, and not enough to permit reparative processes. The extent of this tissue, of course, varies, but the description applies to all.

The condition is due to excessive fibroidization, the density of the fibres being such as to impinge on the nutrient vessels, and ac-

tually produce pain by pinching the terminal nerves.

These cases all seem to recover spontaneously, but their duration may be years, and the pain is so upsetting, that it is useless to temporize with them. The only appropriate treatment is prompt and thorough excision of the affected area, with generous inclusion of adjacent tissue.

If small, or in relaxed tissue, the wound may be brought together by stitching and will heal by first intention. Deep parallel incisions may permit slipping together of fairly wide edges. Very superficial areas can be filled by Thiersch grafts, applied with dry dressing, and protected only by a wire frame or, if sufficiently small, a vaccination shield. These matters are wholly the surgeon's prerogative, and I would only emphasize, by repetition, the utter uselessness of any interference unless it is complete. Curettage has never been effective. Clean incision is, then, the one and sole remedy. In a few cases where there is a noticeable reparative tendency, epithelial covering of the area seems to be hastened by a 5 per cent. to 10 per cent. powder of "Scarlet-Red". I hesitate to mention this, because it may generate a false hope, and delay that surgical management which is prompt, efficient, and positive, when, of course, the affected area is within reasonable limitations.

Carcinoma is, of course the ultimate danger, and most dread disaster, that can follow the Roentgen ray. It is only to be expected in those who have once been severely affected by the ray. The question here arises, as in all carcinomas, whence did it originate? Is it a direct effect of the ray, or only secondary thereto? This is, as yet, unsolved. However, the secondary effects of severe and unremedied ulceration leave the subject in such a condition as we know is peculiarly favorable to carcinomatous development. Such carcinomata are invariably of the squamous type, and it seems to be peculiarly apt to have early metastases. This seems to be especially true of those small irritable ulcers which are found on the hands of operators, when we have early invasion of the epitrochlear and axillary glands, the invasion thus definitely following the lymph channels.

There is little to be said of the condition.

It differs to no appreciable degree from other carcinomata, and the only remedy is surgery, early and radical. The condition is almost unknown now except among Roentgen workers.

This is about all one can say to you as authentic. There remain many less noted but very complicated problems. Their solving are still "in the lap of the Gods", but will, like most, have to be settled in the laboratories. The question of their therapeutic effects, whether chemical, or biological, whether their effects are local or general, whether results are direct or secondary,—all must be used, and solved in the using. I cannot but think that some of the immediate systemic reactions we get in massive dose treatments must be chemical. They are too prompt to be secondary, or biological. I commend the study to workers who are adequately equipped by opportunity, temperament and training. It is a field pregnant with promise.

Allegheny General Hospital.

DISCUSSION.

Dr. Armentrout.—I can only say that the paper is a very timely one, in that it brings together facts which most have only seen referred to here and there as haphazard paragraphs in general reading. Dr. Brady has martialed these facts in a most concise and practical way, and I have not seen any similar effort at classification, as compared with the old and inaccurate terms of burns. I concur most fully with him in most of his presentations and can only wish that he had gone more fully into detail in some lines. Fortunately, the advent of the Coolidge tube has increased the use of massive dosage with protective filtration of the ray, and therefore lessened the number and extent of undesirable sequelae. One of the lessons we learned well from early operators is the necessity for self-protection. Thanks to their example, we are more cautious, and the average Roentgen worker to-day shows little visible result.

Dr. Wiley.—I would like to ask Dr. Brady what terms we should substitute for the old word burn?

Dr. Lawson.—I would ask the Doctor to tell us what he considers a burn is?

Dr. Tompkins.—I had hoped to hear something as to the effect of the ray on the sexual apparatus. Also whether radiation could produce a sterility, such as has been suggested amongst criminals by vasectomy.

Dr. Brady.—Replying to Dr. Wiley, I would say that I suggest the terms used in the classification just presented. What were called "first degree burns" should be styled reactionary dermatitis. The old terms "second and third degree burns" should be called Roentgen ulcers, the degree, if distinction be made, being based on duration and extent of tissue involved. The malignant conditions which follow radiation are almost wholly carcinomatous, and, of course, so styled.

In reply to Dr. Lawson, I would define a burn as a destruction of tissue by excessive heat. There

being no heat to the Roentgen ray, no result from its application can be attributable to heat, and the term is therefore a misnomer, and certainly unscientific as well as misleading. Replying to Dr. Tompkins as to the effect on sexual organs, I can only say that the well known modesty of the profession has prevented full information on this line. It is, however, known that the earliest demonstrable effect is that spermatozoa lose their tails, this being the only method of propulsion. Impregnation would depend upon accidental lodgement on a receptive ovum,—unlikely, but not impossible. This condition is temporary if radiation be not repeated. Unprotected operators, however, develop the same fibroidization of testicular tissue as do other long exposed glands, and eventually sterilization follows. Most of these examples have been incidental to the persistent contact with the ray as operators. Sterilization has been induced by direct and intentional application to the organs. It is doubtful whether a single, even though massive dose, would permanently sterilize. Several such doses, repeated at proper intervals, doubtless would.

As far as has been recorded, the potency to actually achieve sexual congress has never been lost; it is only in the procreative power that the individual is sterile. Semen is not lessened in quantity, but is deficient in spermatozoa.

Dr. Ryan.—Will Dr. Brady tell us if there is more likelihood of malignancy in raying old persons?

Dr. Brady.—I hardly know how to answer the question. If the Doctor means to ask if treatment of the old is more likely to be followed by bad results I would say, unhesitatingly, no. If he asks, if more cases of malignancy are seen in the old, the answer must be yes. But this does not mean that there is greater danger in the raying. It is because most cancers develop in later life; also, a carcinoma forming after radiation, does not do so at once, but as a rule some years after. Therefore, the patient is usually past middle age when it comes. There is a condition which I, perhaps, have mentioned, and which is not infrequent and deplorable. That is the stimulation to extraordinary activity of quiescent epitheliomata by *under dosage*. This is not truly an X-ray lesion, as included in my subject, but it is a result which too great timidity brings to many.

Before closing, I would like to emphasize the great opportunity which is presented to young, enthusiastic and appropriately equipped and trained men, to investigate the unknown, yet appreciable effects of X-radiation. We know that it devitalizes, and destroys embryonic or neoplastic cells. Now the blood is pre-eminently the receptor and distributor of the most recently formed cells. What therefore, is the effect on the blood of raying? What are its secondary effects on the nutrition or secretion of the vital glands which are blood fed? Will the malarial plasmodium be influenced? Thousands of similar problems present themselves, and to the man who solves them will come merited reward and fame.

CESAREAN REVIEWED.*

By J. LEWIS RIGGLES, M. D., F. A. C. S., Washington, D. C.
Associate Gynecologist—Columbia Hospital for Women.

"Hind thought is better than forethought" is a familiar expression heard in delivery rooms following unfortunate experiences in which the infant or mother has been sacrificed or where serious mutilation was necessary to effect a termination of labor. "If we had only known the disproportion between the foetal head and birth canal," especially in breech cases, or "I believe we should have done a cesarean rather than a high forceps operation" are other common remarks.

To cesareanize a woman without a trial labor, even in border-line cases, is wrong, but when you remember that so many women go through a protracted labor, lasting two and three days, and that you have waited for engagement and moulding only to be followed by a difficult forceps delivery, or, as was common in previous years, version with the usual lacerations, shock and hemorrhage, you cannot forget the nerve tension and anxiety experienced and promise yourself that the next case will be managed differently. Give her every chance before you open the abdomen: deliver with forceps or by version whenever possible, but remember that most careful study and judgment beforehand is necessary to decide the proper means of delivery.

The object of this paper is to make a plea for more thorough prenatal study and not to consider cesarean section as a last resort while waiting for the patient to demonstrate that the delivery of a living child through the pelvis is impossible, except by pubiotomy or symphysiotomy, which have practically become obsolete.

Cesarean section performed by a competent surgeon in a hospital where every detail of good technique is observed, should be attended by little, if any, higher mortality than an ordinary laparotomy in which no infection exists. Infected cases and those exhausted by long labor and inertia are bad surgical risks, although one of my cases had been in labor two days, forceps had been applied three times to a floating head and the temperature before operation was 102°. The diagnosis of a large child with strong heart beats in a patient hav-

*Read before The Hippocrates Society, at Washington, D. C., December 10, 1917.

ing an external conjugate of 17cm. made delivery, other than cesarean, impossible. Craniotomy was suggested, also the dangers of a section were presented to the patient. She submitted to abdominal delivery with the result of the saving a 9½ pound baby. The convalescence was not stormy, the temperature reaching normal on the third day, and abdominal distention disappeared about the same time. Iodine-alcohol was freely used in uterus and vagina. I believed this risk was advisable for the sake of the child, which was in good condition.

To determine the necessity for cesarean, careful study of the mother and the growing uterus from the early months of pregnancy should be routine and consultation with the physician and family may bring the case to operation at a safe or elected time, rather than one of emergency. I feel that when a case is in labor and the discovery is made that we are confronted with a pelvis of conjugata vera 6cm., or extra conjugate 17 or 18 cm., a large child, stenosis of cervix, pelvic tumors, placenta previa, a floating head after 20 hours of labor, or eclampsia with undilated cervix, there is no choice, and why wait until there are danger signs before deciding.

It certainly must be questioned that once a cesarean, always a cesarean, and that rupture of the uterus at a future labor is extremely common. I have seen uteri that have ruptured through the old scar, but in one case in which I performed the second cesarean, I could not find any signs of a previous hysterotomy. A correct suturing of the uterine wound ought to leave little scar tissue, but if the wound surfaces are not thoroughly approximated from the most internal muscle layer through to the peritoneum, thin areas occur during the healing, allowing blood clots to accumulate and organize with resulting formation of fibrous tissue; three layers of cat-gut are necessary to close the uterine incision, two to completely coapt the muscle layers and one to invert the peritoneum, at the same time being buried so there will be no raw surfaces to invite adhesions.

The risk of rupture is great, but if the case is not one of contracted pelvis, I believe in a trial labor; with the patient in a hospital and constantly watched, she may deliver herself without assistance. I have seen a few cases with this history and have authentic reports

from obstetricians and head nurses of many others.

I would like to quote E. G. Zinke, of Cincinnati, in which he says that "much has been said concerning the dictum, 'once a cesarean, always a cesarean.'" That can hold true only in those cases in which the conditions persist which made the first cesarean section necessary; when hysterotomy is performed for placenta previa or eclampsia, a perfect uterine scar will admit delivery in subsequent pregnancies. The pendulum many times swings too far towards the radical and unnecessary sections are done. I remember one case ordered to the operating room on account of a floating head; she delivered herself *en route*. On the other hand, the conservatives wait too long and bring the patient to the hospital in extremis. This latter is the main cause for high mortality in cesareans.

To illustrate how vacillating and influenced we all are and how frequently schools of science carry to extreme one theory or another I wish to quote from Caseaux Classical Midwifery, published in the United States in 1868, the following paragraph:

"On account of a monograph by F. Rousset, in 1581, reporting a great many cases of cesarean, all of which were successful, the surgeons became so emboldened that the cesarean operation was often resorted to without any indication whatever and its popularity became so great at one time that a contemporary, Dominican Friar Scopia Mercuria, affirms that it was as common in France as blood letting in Italy." Soon after this, however, a reaction followed and many virulent attacks were made, with the result that for many years the operation was done rarely and during the seventeenth century the mortality was 75 per cent. or more.

A striking report of the present day statistics from private hospitals in smaller cities around Boston, collected by Dr. Franklin Newell, of Harvard University, showing a shocking mortality in cesarean, is as follows:

In city A. No patient on whom cesarean has been performed is known to have recovered.

B. The mortality, as personally stated by one of the local surgeons, is from 60 to 75 per cent.

C. Cesarean is universally considered a fatal operation.

D. Cesarean section is an operation of from

10 to 20 per cent. mortality, but since it has been adopted as a routine method of delivery in eclampsia the mortality is over 50 per cent.

In well equipped hospitals in Boston, seven have been lost recently after operations by supposedly well trained surgeons. The records of the hospitals in Washington are as follows:

The annual report of Columbia Hospital, from July 1, 1915, to June 30, 1916, shows that there were 17 abdominal cesareans with one death, and from July 1, 1916, to June 30, 1917, there were 19 abdominal cesareans with one death. In two years, George Washington had six cesareans, with two deaths; Georgetown Hospital, fourteen abdominal with one death. Annual report of Sibley, in 1916, shows eighteen hysterectomies with one death and in 1917 nineteen hysterectomies and one death. Garfield Hospital had four cesareans in two years, with no deaths.

Although the mortality figures vary greatly in different communities and show there is a wide range of per cent of deaths in the hands of different operators, I am confident that many women and infants are saved who would be sacrificed by other means of delivery.

In conclusion, I discredit the high forceps operation, the forcible divulsion of the cervix to accomplish version in eclampsia, the temporizing with placenta previa, craniotomy in the living child, pubiotomy or symphysiotomy, ultra conservatism in primiparae when the head will not engage and cannot be pushed into the pelvis after 20 hours' of labor, and measurements lower than 18cm. extra conjugate, also the use of pituitrin until after the placenta has past the cervix, and above all scopolamine which has no place in complicated obstetrics.

These deductions have been greatly influenced by the following series of twelve cases, which I wish to report briefly:

Case 1.—Age 33. Admitted to hospital suffering with extreme headache, having had two convulsions at her home. She was not in labor. There was excessive edema of extremities, besides a large amount in the abdominal fat. Active purgation was begun, with no improvement of condition. In three hours she had five more convulsions; cervix not dilated and rigid.

Abdominal cesarean, recovery. Infant lived.

Case 2.—Age 17. Patient admitted in labor but pains were very mild and more or less continuous, uterus being in a state of constant

hardness. This lasted three days. No dilatation of cervix, external conjugate 17 cm. Head would not engage and could not be pushed down in pelvis.

Delivery by cesarean; infant weighed 7 pounds, 14 ounces. Mother recovered; infant lived.

Case 3.—Age 22. Patient 30 hours in labor. High forceps had been applied three times without success. She had been examined time after time without proper technic; temperature before operation 102. Extra conjugate 17 cm. Large child floating above the pelvis.

Abdominal cesarean. Delivered infant, 9 pounds, 8 ounces, in good condition. Mother recovered, infant lived.

Case 4.—Aged 17. Admitted in labor sixteen months previously; had been delivered by cesarean for contracted pelvis. After ten hours of trial labor, pains became weaker and ineffectual. Extra conjugate 18 cm. Head would not engage.

Abdominal cesarean. Mother recovered. Infant lived.

Case 5.—Age 18. Dystocia after forty-eight hours of labor. Extra conjugate 20 cm.; no engagement of head.

Cesarean. Mother recovered. Infant lived.

Case 6.—Age 25. Admitted in labor. Patient complained of being blind. On examination, the extremities were found greatly swollen and the abdominal fat was edematous. Urinalysis—specific gravity 1,040; urine solid on boiling; blood and casts present. She had one convulsion. Cervix not dilated and rigid. Extra conjugate 22 cm.

Abdominal cesarean. Mother recovered. Infant lived.

Case 7.—Age 25. Contracted pelvis; extra conjugate 17 cm. Thirty hours' trial labor with no engagement.

Abdominal cesarean. Mother recovered. Infant lived.

Case 8.—Age 20. Patient admitted in labor. Had been attended before entering hospital. Contracted pelvis; 17 cm. Albuminuria; no dilatation of cervix. Tonic spasm of uterine muscle, three convulsions.

Abdominal cesarean. Mother died on ninth day from general peritonitis. Infant lived.

Case 9.—Age 26. Eclampsia, edema of abdominal wall and back.

Cesarean. Mother recovered. Infant lived.

Case 10.—Age 35. A fibroid filled the pelvis:

although this was pedunculated, it could not be pushed above the pelvic brim.

Cesarean and myomectomy. Mother recovered. Infant lived.

Case 11.—Age 17. Contracted pelvis. Thirty hours of trial labor, in which the patient became exhausted. No engagement of head; patient very weak at time of operation.

Cesarean. Mother died in ten days from intestinal obstruction. Infant lived.

Case 12.—Age 15. Contracted pelvis. Patient weighed about ninety pounds. The abdomen was quite large. R. O. P. position. Hard labor lasted thirty-six hours, with no engagement, labor pains gradually becoming weaker.

Cesarean. Mother recovered. Infant, eight pounds, fourteen ounces, lived.

She is now pregnant again, age 17, measurements about the same.

1800 K Street.

INDIGESTION.*

By D. L. HARRELL, M. D., Suffolk, Va.

The subject I wish to discuss is one of the oldest, most important, and frequent that the physician meets. It is so common that it is usually diagnosed by the patient or his friends before the doctor is consulted. Frequently (for the doctor's convenience) the treatment is directed by the chemist of some pharmaceutical laboratory, and yet we are amazed to know why these patients wander from physician to physician.

A moment's thought shows that our management is, in many instances, entirely too lax in these cases and that we must do something before anything will be accomplished. The field it covers is one of magnitude and its cause can often be traced to the most intricately hidden recesses known to human anatomy and physiology. I shall, in a very general way, attempt to briefly touch on some of the requisites essential for obtaining a comprehensive understanding as to its etiology, diagnosis, and treatment.

Indigestion conveys the idea that there is a failure, on the part of the gastro-intestinal tract, to bring about certain important and necessary changes in the food taken during

its preparation for assimilation and nutrition of the body. It is manifested by "distress," "bloating," "pyrosis," "acid stomach," "nausea," "vomiting," disturbed appetite, irregular heart action, etc. Such a condition indicates perverted physiological function or pathology, or possibly the two combined, and may have origin in the gastro-intestinal tract, the cardio-vascular, cardio-renal, respiratory, or any other system in the body. The cause or its location makes little alteration in the syndrome as such, but, in the majority of instances, a painstaking analysis throws light in a definite direction as to a true etiology and diagnosis.

This subjective symptomatology has always been the most difficult of all syndromes known to the profession for analysis, for it is a fact that any organ in the body, possessing pathology or perverted physiological function, may give rise to any one or all of the symptoms of "indigestion" so-called. These evident facts warrant the necessity of a consideration of the nerve supply of the stomach and other abdominal viscera, if we are to understand why and how pathology or perverted physiological function of the organs of generation, kidneys, lungs, or gall-bladder, with no pathology present in the stomach, can give rise to these symptoms which are often the first manifestations of such disease.

The nerve supply of the abdominal viscera is furnished through both the cerebro-spinal and the sympathetic systems. The sympathetic is a peculiar, elaborate and intricate system of nerve distribution, with fibers mingled and interlaced in a great network of ganglia and plexuses, profusely scattered throughout the entire abdomen, associating and connecting not only these ganglia and plexuses with each other, but receiving nerve fibers from the cerebro-spinal system which come from distant parts of the body and become component parts of this great system of nerve distribution playing a well-defined part in both normal and abnormal activity.

The extreme sensitiveness and disposition of a nerve fiber to transmit its own peculiar force or impulse in a definite direction, to a definite center, makes it possible that no influence of importance can exist in one organ or part of the body so associated with-

*Read before the twenty-second annual meeting of the Seaboard Medical Association of Virginia and North Carolina, at Norfolk, Va., December 4-6, 1917.

out its effect being felt in other parts to some extent or degree. It is an established physiological fact that the nerve fibers of this system are capable of transmitting all kinds of nerve force, some motor, some sensory, some secretory, some vaso-motor. The stomach, receiving its supply from both the cerebro-spinal and sympathetic systems, is rendered more than susceptible to impulses from both systems, direct and indirect or referred. This explains the nausea and vomiting of pregnancy, the epigastric pain of strangulated hernia and acute appendicitis, also the disturbance of digestion from chronic appendicitis and gall-bladder disease.

Sensory nerves convey two kinds of impressions, those of well-being and supreme comfort, and those of distress or pain. All the manifestations of disturbed digestion are expressions of such impulses and should be summed up under one common subjective symptom—"distress." Defeat often anticipates our efforts to make a diagnosis because we try to link up hypoacidity, hyperacidity, pyrosis and the like, as some special diseased entity of the stomach. The character of the particular manifestation is dependent upon the characteristics of the nerve fiber stimulated to impulse. If it is a secretory nerve, then the manifestation will be of the secretory type; if motor, of the motor type; if sensory, of the sensory type. Therefore, with an acceptance of the foregoing facts, it can be seen that a case of "chronic indigestion" so-called, either continuous or intermittent, is a problem that requires extensive study if one is to make a really correct diagnosis, and this is essential, for a successful treatment and a reasonable prognosis both hinge on determining the cause and location for such complaint.

This can not be accomplished by asking a few brief questions—the reply to which often means nothing—a percussion and auscultation of chest and abdomen through all clothing—which frequently includes a corset,—feeling the pulse and taking the temperature. It requires a written record of the best possible history of the case gotten from the patient, which should be supplemented by further information from some other person familiar with the case whenever possible. Then a thorough and careful physical examination

should be made with all clothing removed to hips, during which findings should be dictated to a stenographer for written record. The patient's physique should be noted; type, whether over- or under-nourished, presence or absence of edema; the skin should be examined for scars, eruptions, whether moist or dry, cyanotic, pale or cachectic; the eyes as to intraocular tension, reaction of pupils, discoloration and ophthalmoscopic findings of eye grounds under atropine when indicated; the nose, throat, and teeth, especially for locating a possible site of infection or other pathology; the mucous membrane of mouth for evidences of lues, etc., the neck for thyroid abnormalities. Lymph nodes should be sought throughout in neck, axilla, elbows and groins especially. Examination should be made of the pulse, blood vessels and blood pressure with special reference to pulse pressure, thorax as to formation and shape, the breast for nodules or other evidences of disease. Every part of both lungs should be examined by percussion and auscultation, the heart as to size, position of apex, for murmurs, force, quality of muscular tone, frequency of action whether regular or irregular, the abdomen by inspection for evidences of previous operations, pregnancies, etc., shape, visible peristalsis or enlargements, by palpation and percussion for size, and position of abdominal organs, muscular tone, masses or enlargements, muscular spasm and tender points. In the female, except in rare instances a vaginal examination is essential, and in all cases, a digital rectal should be routine. Reflexes, gait and station should be observed. A tubercular skin test should be made. In the event of genito-urinary indications, a cystoscopic and ureteral catheterization should be done, also X-ray photographs made of kidneys. If the eyes, ears, nose or throat findings indicate a possible source of etiology, the case should be referred to a specialist in this line. If the pointings are surgical in nature, the report of a capable surgeon should by all means be secured. A twenty-four hour specimen of urine should be examined chemically and microscopically. Blood examinations, including both red and white cell count, and the cells observed as to shape, hemoglobin percentage, differential leucocyte, malarial organisms sought, and a Wasserz

mann made. In certain cases the spinal fluid should receive a Wassermann, also feces, which should be collected in a warm vessel, should be examined both chemically and microscopically, while fresh and warm on a warm stage. Sputum should be examined microscopically when present. A test-meal on removal should receive a prompt chemical and microscopical investigation. X-ray fluoroscopy of sinuses, heart, lungs, and mediastinum, followed by a barium or bismuth meal, and the esophagus, stomach and duodenum observed for abnormalities. Photographic plates of stomach, duodenum, esophagus, gall-bladder, kidneys or other organs are to be made when indicated.

With a written report of the foregoing in hand, one is able to trace with more or less certainty what organ or part of the body is responsible for the symptoms in question and our opinion as to etiology will be based on facts, intelligently and justly excluding one system after another until we have definitely located the true cause or causes. Such an investigation obviates a frequent mistake or failure made in diagnosis when we are content to stop on the finding of one and the first condition that would probably account for the symptoms present.

We can not expect an appendectomy to establish a cure when the gall-bladder, tonsils and teeth are equally responsible for the disordered digestion. A case of visceroptosis with a triple plus Wassermann will never be relieved of the gastric crises by the Weir Mitchell treatment, followed by persistently wearing an abdominal supporter correctly fitted and carefully applied.

We must bear in mind that "indigestion is a symptom, and not a diseased entity of the stomach in 90 to 95 per cent. of all cases. It is often the first and foremost manifestation in some of the diseases peculiar to the different systems of the body, such as early pulmonary tuberculosis, organic heart disease with failing compensation, stone in the kidney, pelvic infection in the female, chronic malaria, the anemias, etc."

In making up a diagnosis, all the methods outlined are absolutely essential for completion and should be routine, but emphasis on care in taking the history of the case is important, especially the early history, for it

is there we come nearest the real symptomatology. Later complications arise and we deal with a confusion of manifestations that cannot be correctly placed without due consideration of when and how the earliest attack behaved.

Treatment by the use of hydrochloric acid, nux vomica, pepsin, pancreatin and all the beautifully colored and deliciously flavored preparations furnished by the manufacturing chemist, with elaborate literature explaining just how each special preparation possesses distinctive properties, making it nearer a specific for all cases than its closest competitor, have been prescribed only to have hope and confidence destroyed. This is a natural sequence if the above solution be correct. A rational treatment is not to be expected without a rational diagnosis. The cause must receive the treatment. If it is syphilis, then treat syphilis; if it is tuberculosis, treat tuberculosis; if intestinal parasites, give them attention. If it is an appendix, gall-bladder or other surgical condition, give the appropriate surgical treatment, and we will establish a new and full confidence in these pitiful sufferers by relieving symptoms, correcting pathology, preventing complications, and prolonging life, to be spent in comfort and service instead of agony, dependence, and invalidism.

Practical Points in Current Medicine

Conducted by
PUBLICATION COMMITTEE,
Medical Society of Virginia.

Public Health

The First Move Toward Midwife Control In Virginia.

An important amendment to the Vital Statistics Law made by the recent legislature is one requiring midwives to register their names and addresses with their local registrar, and secure a permit to practice midwifery for pay. This permit is to be issued by the State Registrar and countersigned by the local registrar. The midwife signs a pledge card, in which she binds herself to report all births within ten days, and to practice in accordance with the "Safety

Rules" printed on the back of the permit. Failure in either particular may cause the permit to be revoked.

The chief aim of the "Rules" is to make the midwife less a source of danger to the mother and child. She is forbidden to make vaginal examinations or administer drugs, and is required to practice cleanliness, so far as it is possible to accomplish such a thing with the type of women who generally pose as midwives. She is enjoined to call upon a physician for help, if there are any complications, or if the delivery is not accomplished after twenty-four hours of labor.

Midwives, as well as physicians, will be required to use two drops of a one percent solution of nitrate of silver in each eye of the new born infant. Wax ampules, each containing a treatment for one child, will be mailed to physicians and registered midwives by the Bureau of Vital Statistics. They will also be left on desposit with city health offices for distribution.

The State Registrar has also prepared a small booklet, "Help for Midwives", giving them some elementary instruction more fully than is found on the back of the permit. Any physician who is interested may request one of the booklets. It is hoped that all will back up this effort by giving these women bedside instruction in cleanliness and asepsis. It is believed that the 462 deaths in childbirth for 1917 can be materially reduced in number.

W. A. PLECKER.

Obstetrics

Cephalhematoma Following A Normal Delivery.

Several months ago a case of cephalhematoma came under my observation, following a normal delivery. Mrs. C., white, 23, primipara, normal pelvic measurements, L. O. A., was in labor for a period of 6 hours. On the first day after birth a considerable amount of swelling was noticed on the posterior superior angle of the right parietal bone (unilateral) and grew somewhat larger for the next three days and remained stationary until the end of the second week when it began to diminish in size, and on the twenty-first day it had disappeared entirely. There was no discoloration over the

swelling and the latter did not cross the suture; there was a slight fluctuation. The parents became somewhat alarmed but their fears were allayed by telling them that the swelling would gradually be absorbed. No treatment was instituted and at no time did the baby exhibit any evidence of being affected by this tumor.

There are several points that should be constantly borne in mind regarding cephalhematoma. This condition is due to the rupture of one of the small emissary veins, usually occurring during delivery in difficult labor, while in a small percentage of cases no cause can be discovered. The blood collects between the pericranium and the bone; therefore the tumor is not on the brain but an extra-cranial hemorrhage. The swelling may appear on any part of the head but is nearly always limited to one bone, and that as a rule a parietal. The cephalhematoma instead of being a unilateral condition may be bilateral, and following a spontaneous and relatively easy delivery. The single form of this blood tumor may be mistaken for a caput succedaneum, and the following points will serve as a valuable aid in making a differential diagnosis:

Cephalhematoma—

Slow effusion of blood.

May appear at birth; if not, during the first three days.

May increase in size after birth for the first seven days.

No discoloration over the swelling.

Disappears in one to three months.

Swelling never crosses a suture.

Swelling may fluctuate.

Caput Succedaneum—

Rapid effusion of serum.

Always present at birth.

Decreases in size after birth.

Skin over swelling darker than that over the rest of head.

Disappears in one to three days.

Swelling may be over a suture.

Swelling does not fluctuate.

A cephalhematoma has also been mistaken for a meningocele or meningo-encephalocele. In the latter condition the tumor pulsates synchronously with the heart and with the respiratory movements. In the last two conditions mentioned, when the child cries,

the swelling becomes quite tense and if pressure is made upon them it may cause convulsions.

Treatment is not necessary unless, in rare cases, when the hematoma suppurates the abscess must be opened and treated on general principles.

JOSEPH BEAR.

Neurology.

Neurology and Psychiatry In War Work.

In the last issue appeared a most interesting article by Dr. James K. Hall on the value of mental tests for those in army service.

The branch of neurology and psychiatry in the army medical service needs more trained men. There has been appointed a National Mental Hygiene War Work Committee, of which Dr. C. L. Dana of New York is chairman. One of the chief objects of this Committee is to get trained neurologists and psychiatrists in the service. In this work it is not only necessary to arrive at an understanding of the mental capabilities of the soldier but also to weed out those who are emotionally, mentally or neurologically unfit. Thousands have already been discharged.

Another important work is to test applicants for various branches of service as to their fitness for that particular branch: for instance, an aviator requires a very different aptitude from an artilleryman, and an artilleryman from an infantryman.

It is also necessary to have trained neurologists to work in conjunction with the surgeons in cases of injury to the brain, spinal cord, or the peripheral nerves. It is important to note early reflexes and other changes which would indicate syphilitic involvement of the central nervous system. In the special and general hospitals there is need for trained neurologists, especially for work among the cases of meningitis and shell shock.

Later on, during and after the war, both neurologists and psychiatrists will be needed for reconstructive mental and neurological work. All of this offers wonderful opportunity for those already in this specialty and for those desiring to enter this most important and interesting field of medicine. In either instance the writer would be glad to have the names of physicians desiring to

enter the service in this specialty so that applications can be forwarded to the Mental Hygiene War Work Committee.

BEVERLEY R. TUCKER.

Ophthalmology, Otology, Rhinology and Laryngology

Ophthalmia Neonatorum.*

Ophthalmia neonatorum, or purulent inflammation of the eyes in new-born children, is caused by some infecting material getting into the eyes in the passage of the child through the birth canal of the mother, or very soon after birth, from careless bathing of the child, or from the soiled fingers of the nurse, or from unclean sponges or towels.

The commonest organism that causes this dreadful trouble is the gonococcus, the active germ of gonorrhœa. It can also be caused by the pneumococcus, the streptococcus, the diplobacillus, the colon bacillus, and the staphylococcus, of which the pneumococcus is the germ most frequently found. There are, consequently, two forms of this disease: a very severe form due to the gonococcus, and a milder form due to the above mentioned germs; hence, a baby can have this disease without any venereal contamination of the mother. The gonorrhœal form sets in from twelve to seventy-two hours after birth, and the non-gonorrhœal form usually later, on the fifth or seventh day. If due to infection from soiled hands, clothes, etc., it may be still further delayed. Sometimes, but rarely, even gonorrhœal infection does not appear for several days. It makes no difference, however, when it appears, the treatment is the same, and the danger in all such cases to eyesight is sufficiently grave to require immediate expert advice and treatment, within, at least, six hours after the appearance of the first symptoms. Any delay may result disastrously and cause blindness, especially as we know the gonorrhœal form very rapidly cuts off the

The papers in this Department by Drs. White and Hanger were written for a bulletin in press by the Bureau of Vital Statistics of the State Board of Health, which has been assigned the duty of enforcing the new State law for the prevention of blindness. The attention of all physicians is called to the importance of this subject.

The Bureau of Vital Statistics will soon mail to the physicians and midwives of the State wax ampules containing the prophylactic treatment, the number being based upon the number of births reported by each during 1917.

nutrition of the cornea, and brings about destructive ulceration.

Most of this evil, however, can be prevented or aborted by the use of the one per-cent solution of nitrate of silver immediately after the birth of the child by the physician or midwife in charge, as is made obligatory by the new law, in every case he or she attends rich or poor, white or black,—without waiting for the symptoms to develop. This abortive treatment does no harm if properly used, and will prevent all but the most virulent type of infection, and materially lessens the danger of blindness from this so-called “black plague”.

JOSEPH A. WHITE.

Notice To Doctors And Midwives.

At the last session of the Legislature (1918), a law was enacted requiring all doctors and midwives in the State of Virginia to drop certain drops into the eyes of all new born children, immediately after birth; which drops are to be furnished by the State Board of Health free of cost. For failure to do this, a doctor or midwife will be fined not less than ten dollars nor more than fifty dollars for each offense.

The drops are used in order to prevent ophthalmia neonatorum, or “babies’ sore eyes”, which causes from twenty to seventy per cent. of the hopelessly blind in the world varying in different countries. These drops are an almost certain preventive of this terrible disease, and have reduced its frequency in some lying-in hospitals, from twelve per cent. to one-half of one per cent. That is, where twelve babies had sore eyes in every one hundred births before the use of these drops, now only one baby in every two hundred is affected. After knowing this fact, every right thinking doctor and midwife should be willing to comply with this law, in order to lessen the number of blind children in the State. The drops are perfectly harmless, not poisonous, and can do the eyes of the child no possible damage, although they do not prevent the disease in every case in which they are used.

How to use the drops. Before using the drops, the hands of the doctor or midwife must be washed perfectly clean with soap and hot water, and disinfected with a solu-

tion of bichloride of mercury, one to two thousand, if such is convenient; or lysol, a teaspoonful to a pint of warm water, or use antiseptic soap.

Immediately after birth, place the baby on its back and carefully wipe its face and eyelids with a soft sterile cloth or absorbent cotton, moistened with water which has been boiled and allowed to cool until it is milk warm. The lids must be wiped from the nose outward, without opening the lids. Then dry the face and eyelids with a soft cloth.

Never use any vessel or cloth about the baby’s face which have been used about the mother.

This precaution must be observed for weeks after the birth of the child.

Now separate the upper and lower lids of each eye with the thumb and fore-finger of the left hand, being careful not to touch the eye balls with the finger nails. Or pull the lower lid down with the end of the finger, around which a bit of clean cloth or gauze has been wrapped. Then drop two drops of the medicine into each eye, which is squeezed from the ampule with the right hand, after the ampule has been punctured with a clean needle. The drops must be dropped *into the eye*, and not on the outside of the lids or inner corner of the eye. Then move the lids up and down, so as to cause the drops to spread over the eye-ball and inside of the lids. The drops may cause the edges of the eye-lids to become a little red and some mucus to form on them. This will stop entirely in a day or two and should cause no alarm. However, the lids should be separated every three or four hours and the mucus wiped from their edges with a clean cloth moistened with a warm boric acid solution a teaspoonful to a pint of water. The eyeball should not be rubbed with the cloth while this is being done.

Caution. Should the lids of one or both eyes remain red or swollen, after two or three days, and the discharge grows greater and becomes creamy in appearance, the doctor or midwife in attendance must notify, *at once*, the Health Officer in the town, city or magisterial district in which the mother lives; for the chances are that the child has ophthalmia neonatorum, or “babies’ sore eyes”, in spite of the use of the drops.

Should the eyes of the baby appear to be well, after the use of the drops, and yet become sore at any time within two weeks after its birth, accompanied with an abundant, creamy or unnatural discharge, the Health Officer must be notified at once, and he will take steps to have the child properly treated. Should there be no Health Officer in the town, city or magisterial district in which the infant resides, midwives shall immediately report the condition to a physician and withdraw from the case entirely, or only act under his instructions.

FRANK M. HANGER.

Proceedings of Societies, Etc.

ROANOKE ACADEMY OF MEDICINE.

Feb. 4, 1918. Regular meeting, Dr. Trout presiding.

After transaction of some business matters, *Dr. Brady* read a very aptly expressed paper on "X-Ray Lesions". He said "In the bright lexicon of roentgenography, there is no such expression as X-ray burn. A burn is a destruction of tissue by heat and there is no heat in X-ray; therefore, there can be no burn. Lesions may appear in any one of four forms viz;—keratosis, dermatitis, white gangrene (or ulcer), or carcinoma." His paper was discussed at some length and more briefly by others.

Dr. Willis presented a thesis on "Interpretation of the Wassermann Test." Drs. Wiley, A. P. Jones and Foster took part in the discussion following. Brief case reports were made by *Drs. Tompkins* and *Brady*.

A discussion arose in regard to State care of indigent tuberculous subjects. *Dr. Brady* moved that the Legislative committee take up this matter with our law makers. *Dr. Lawson* opposed the resolution on the ground that a request for some hundreds of thousands of dollars to enlarge facilities for treating this disease is now before the Legislature.

Feb. 18, 1918. Regular meeting, Dr. Trout in chair.

Dr. Armentrout's paper on "Use of X-ray in Diagnosing Infections about the Mouth" was well illustrated by lantern slides. By special invitation, a number of dentists were present and took part in the discussion. The essayist showed excellent radiographs of cases

of pyorrhea, abscesses, unerupted teeth, etc.

Dr. Brady opened the discussion in which *Drs. Gale, Stephen Preston, Carroll and J. W. Preston* took part.

Dr. J. W. Preston offered a resolution, which was carried, to the effect that the Academy invite all ethical dentists of the city and county to become associate members of this organization, to meet with us and take part in such discussions as interest them. It was also determined to arrange a joint symposium on "Oral Infections" for the last meeting in May.

Dr. Pedigo presented an improved crutch with rocker at bottom.

Dr. H. E. Jones read a paper entitled "Thesis Number 4.—Orthodox and Physico-Clinical Electron Diagnosis; Combined Medicinal and Mechanical Treatment of Diseases of the Female Generative Organs"

A letter from *Dr. Martin* was read and the secretary was instructed to reply by telegraph.

March 4, 1918. Regular meeting called to order by *Dr. Trout*.

Dr. A. A. Cannaday made a talk on the two more common forms of conjunctivitis, catarrhal and gonorrheal, laying most stress upon treatment. A good discussion followed, *Drs. Garrett, H. E. Jones, Gale, Armistead, and Lieutenant Brunet, U. S. N.*, taking part.

Dr. Garthright's paper was accorded close attention and hearty applause. "A Lesson from the Draft" was his subject, and he dealt with health matters in a most instructive, and at the same time a most entertaining way. When the president asked for a discussion, *Dr. Brady* seemed to voice the sentiment of all present when he said "Mr. President, I think a discussion of this paper would only spoil its effect".

It was moved and seconded that this paper, being of such sound teaching and public interest, the author be requested to allow its publication in the public press. The motion carried and *Dr. Garthright* placed his paper in the secretary's hands, by whom it was given to the Roanoke newspapers and appeared in the "World-News" of March 8th, and the *Roanoke Times* of March 10th.

A discussion following the reading of a letter by *Dr. Gale* which he had received from *Lieutenant W. L. Powell, M. R. C.*, crystallized in the resolution below appended:—

Whereas, It has long been the unanimous desire and intention of our profession to give expression to their appreciation of the patriotism and sacrifice on the part of those of our members who have volunteered in the national service; and,

Whereas, Much delay has been caused by the discussion of methods of accomplishing that end; therefore, be it

Resolved, That the Roanoke Academy of Medicine is proud of the spirit which inspired and the sacrifice which attends their voluntary service; and now and here assures them that it stands ready to uphold their interests while absent, and to exercise the most scrupulous care to retain for them their personal clientele when they return.

2d, That to further indicate our sincerity and support, we proceed at once to raise a Service Fund by voluntary monthly subscription, which fund shall be applied to meet emergency necessities of the dependents of those now in service, or who may serve later, the remainder to accumulate and be apportioned to the members on their return from service, as a slight but partial compensation for their financial sacrifice.

3d, That a Service Fund committee, consisting of five members be appointed, and this committee empowered to collect, apportion, and otherwise administer this fund at their discretion, it being understood that in such apportionment all pertinent facts be considered such as previous income, number of dependents, condition of returned men, etc.

4th, That this committee shall make a detailed report of its progress at the first regular meeting of the academy in each month.

5th, That this action shall be made known to the absent members and the local press, and that the latter be furnished with the names of those of our members who are now in service or commission and that at some future date before the expiration of the war, the public be acquainted with the names of those who volunteered, but who were not accepted.

The following members of the Roanoke Academy of Medicine have entered military service of the United States:

Dr. A. J. Black, Hollins.

Dr. R. W. Brown.

Dr. S. B. Cary.

Dr. F. A. Farmer, Cave Spring.

Dr. Hugh Hagan.

Dr. George S. Hurt.

Dr. L. H. Justis.

Dr. J. W. Knepp.

Dr. E. H. Muse.

Dr. W. L. Powell.

Dr. L. G. Richards.

Dr. George M. Maxwell (commissioned, but not yet called.

Dr. Brady moved that committee be appointed to address to the local newspapers a protest against the outrageous character of patent medicine advertisements appearing therein. This was carried and committee appointed.

Communications were received from the local Y. W. C. A., and from various legislators, both State and National, on subjects called to their attention by this body.

E. P. TOMPKINS, M. D., *Secretary*.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Reported by EMIL MAYER, M. D., New York, N. Y.

(Continued from page 455.)

Presentation of Pathologic Specimen of Large Tumor of Pituitary Gland.

By ROBERT C. LYNCH, M. D., New Orleans.

The man was a quadroon, about six feet, one inch tall, with hands and feet somewhat larger than usually seen, though not sufficiently so to be suggestive. He was well developed to the point suggesting fat, with a fairly developed chest and mammary glands, and small hips, resembling in a degree the feminine type.

About the end of July, 1916, he had profuse nose bleed, following heavy work, with recurrences daily, when the nose began to block up, voice became hoarse and eyes began to protrude. Upon examination the septum was deviated strongly to the left, the right nostril filled with an irregular spongy red mass which bled easily upon manipulation; pupils were dilated and did not respond to light or accommodation; pulse eighty; eye grounds show slight pallor with double temporal hemianopia or loss of vision over the outer half of each eye. A specimen of tissue was removed and the laboratory reported back: "A sarcoma."

The patient in December had the same symptom complex apparent, only slightly aggravated. The exophthalmus was very marked, the superior maxillary prognathism was apparent. The mass in the nose was as described and could be seen in the nasopharynx.

An attempt to remove the mass through the nose only succeeded in getting out a small part. The tissue was reported as granulation or inflammatory, but not malignant. Upon the second trial a facial decortication was done, and at the same time the right antrum opened. This gave plenty of room to remove the mass more completely, but when the roof of the nose and over both orbits were found pulsating, and with the finger he could feel the meninges and see the dura, he was convinced that it was time to stop, fearing lest the sudden loss of support would produce a hernia.

The nose was packed, a large postnasal plug introduced, tying the attached string to the ear. He was returned to bed in good shape, but upon waking from the anesthesia he caught the string and pulled upon it with such force as to force the postnasal plug through the exposed dura and into the brain. He died from a basilar meningitis.

The specimen was presented for observation, together with the X-ray plates and a microphotograph of the tumor which is characteristic of pituitary gland.

(To be continued.)

Analyses. Selections. Etc.

Conducted by
MARK W. PEYSER, M. D., RICHMOND, VA.
Secretary Richmond Academy of Medicine and Surgery, etc.

The Field of Internal Medicine.

In his Presidential Address before the American Congress on Internal Medicine, Reynold Webb Wilcox, M. D., said:

What, then, is the domain of internal medicine? Shall we define it as what remains after surgery and the narrower specialties, as ophthalmology, otology, laryngology, gynecology, andrology and urology, or whatever of it belongs to the preceding two categories, are subtracted? Or shall we still further diminish its field by eliminating neurology, psychiatry, pediatrics and dermatology? The position of the dermatologist calls for especial consideration. It is conceded that surgery does not claim him. If we follow the Vienna School in assuming that the skin is an organ, as the eye or the ear, he would be an exponent of one of the narrower fields of specialism. If we should adhere to the tenets of the London school and expect the attention to be directed to the study of sys-

temic conditions, which that school has emphasized, he could readily be enrolled as a practitioner of internal medicine. In fact, one of the greatest names of that department of the healing art was Hutchinson, whose name rests largely upon a disease, syphilis, which is clearly in the field of internal medicine. If we are influenced by the Paris school, our decision must rest somewhat in doubt. However, this is a question upon which the Congress eventually must take official action. A definition which is predicated solely upon exclusion is neither logical nor final. The schismatic operations being repeated, the remaining moiety might readily become negligible. A definition must be not only inclusive, but as well exclusive. We may define the domain of internal medicine as including:

1. Diseases caused by parasites: Psorospermiasis, distomiasis, trypanosomiasis and by nematodes, cestodes and parasitic insects from arachnidae to pediculi, either as directly causing disease or by their acting as carriers.

2. Infectious diseases, of which enteric fever, diphtheria, infectious pneumonia, tuberculosis, erysipelas, syphilis and the eruptive fevers, communicable or contagious, represent various types. These number nearly ninety, the majority of definite and known causation, all readily recognizable, and all presenting pathological manifestations of which the treatment must fall to the lot of the internist.

3. Constitutional diseases, such as gout, diabetes, scurvy, rickets and others.

4. Intoxications, including the various metallic poisonings, alcoholism and other drug poisonings, food and occupational poisonings, and the results of exposure to high temperatures.

5. Diseases of the digestive system and its adnexa, the liver and pancreas.

6. Diseases of the blood and of the ductless glands, which are not only of increasing interest and importance but are likely, in the future, to necessitate a new classification.

7. Diseases of the circulatory system: heart, pericardium and blood vessels.

8. Diseases of the respiratory system, including those of the pleura.

9. Diseases of the mediastinum, few in

number, and relatively rare, but of enormous difficulty in diagnosis.

10. Diseases of the urinary system.

11. Diseases of the nervous system, including those of the mind.

12. Diseases of the muscular system; the myosites, the dystrophies and the disorders of function of which myasthenia, myotonia and paramyoclonus are types.

It cannot be assumed that this classification is final, because not only are individual diseases constantly changing from one division to another, as, for instance, pneumonia from diseases of the respiratory system to the infectious diseases, but also some groups may be merged together as our knowledge of etiology increases. The terrain will remain the same, although the boundaries of the different divisions may change. * * *

We have defined the field of internal medicine and have shown its relationship to the coordinate branch of the healing art—surgery,—and the narrow specialties, and now we must define our name. It is a curious fact that the practitioners of internal medicine have not yet, by common consent, so far as this country is concerned, received a distinctive name. The term “diagnostician” has been suggested. Diagnosticians we certainly are, and we are proud to be considered as such, but we realize, better probably than any other group of practitioners, that diagnosis is not the sum total of our efforts, but only the conclusion of the first stage of our work, and merely preliminary to the part that is most important to our patients, which is treatment. We certainly are not general practitioners, either in theory or practice. For, with the mass of accumulated facts and the logical deductions therefrom, neither the learning of an Aristotle nor the intellect of a Bacon, nor both combined, if such a genius were possible, could result in so broad a knowledge, so vast an experience, and so great technical skill that all phases of scientific endeavor could be marked with such a degree of usefulness as we believe adequate for professional work. Nor does this statement conflict with the opinion that specialists, both broad and narrow, are better specialists if the earlier years of their career are devoted to general practice, and the broader their knowledge and the larger their experience in the general field, the more likely are

they to become really expert in the smaller field to which their natural aptitude or special opportunities may have limited them. The name “*internist*” is undoubtedly the proper one for those whose activities are circumscribed by the limits which have been set down earlier in this address. The term “physician” too often is assumed to have the qualifying adjective “general” omitted, and is not distinctive. In the profession, even, one who has worked exclusively in the field of internal medicine for a quarter of a century, eschewing surgery, obstetrics and the narrower specialties, who has been a teacher of medicine and an author of text-books upon its practice, is frequently and erroneously designated as a “general practitioner.” In Great Britain we are known as “*internists*”; on the Continent “*internal medicine*” is recognized; let us be known in this country as *internists*, and be willing to define the term until such time as the profession and the people know what it means, and medical associations, big and little, representing or not medical science, afford the designation official recognition. We must teach that the “*internist*” is an educated and trained physician, who gives his best endeavors to an accurately delimited field, known as “internal medicine,” and that the real internist is not only a specialist, but, what is far more rare, an expert. It is to the internist that the heritage of the earlier physicians has come. This is the American Congress on Internal Medicine, and we are the descendants of men who have served their time and generation, and have left their impress upon American medicine.—(*Transactions American Congress on Internal Medicine*, 1916.)

The Heart of the Pregnant Woman.

Louis Burckhardt, Indianapolis, quotes MacKenzie, “that hardly any attention is paid to the discussion of the heart in obstetric cases,” and says that a casual inspection of books on obstetrics and current literature verifies this. The fact is the more astonishing because in a large percentage of cases difficult labor and puerperal disturbances must be traced to poor circulation. The attending physician must, therefore, acquaint himself as early as possible with the patient’s heart condition to determine, 1, if it will stand the strain imposed by the

increased metabolism of pregnancy; 2, if it will be able to stand the strain of a normal or pathologic labor; and 3, if it will be capable of carrying the woman through the state of involution so that she will be restored to full health.

Attention is first called to those who show but slight evidence of disturbed circulation, and then to those who have had a serious infection of the heart and have been left with a permanent lesion mild enough not to interfere with the average activities of daily life. Referring to the latter class, where there is no history of a breaking down of compensation, the patient may be permitted to go on as usual, but under strict medical supervision up to term.

Careful distinction should be made between organic murmurs and those of functional origin. Ordinarily, none should be declared organic unless secondary physical signs can be demonstrated. Posture is an important consideration, and examinations should be made while the patient is recumbent as well as while she is standing or sitting. Pronounced tachycardia and marked arrhythmia are serious.

Recurring to the first class, the author cites the following: A young woman, usually with a tendency towards adiposity, and with a florid complexion changing from blush to sudden paleness of the face; with cold and moist hands and feet, a light tachycardia and blood-pressure below the average; abnormal temperature; easily fatigued, but blood almost normal; a history of one or more attacks of nasopharyngeal infection, or even more serious previous infections, as scarlatina or puerperal fever—in short, the type of the rheumatic heart. Sluggishness in every respect is the characteristic of this type. Examination of the heart hardly ever shows the symptoms of permanent change, neither dilatation nor murmurs, though the latter may be elicited by enforced exercise; but we find the sounds, particularly the second, weaker than usual, and the pulse easily compressible. Cyanosis of the lips is rarely noticed, but cyanosis of the finger-nails can be made out in most of the cases, and lack of vascular tone can be demonstrated by the ease with which even a slight pressure on the ball of the fingers produces a deep reddening of the finger-nails. Depression-marks on the nails—transverse, and occurring on all at the same height—denote a condition of malnutrition produced

by infection occurring at a time corresponding to their growth.

The author attaches as much importance to irregular menstruation of a certain type as to the anamnestic symptoms of broken-down compensation. Delayed in starting, delayed in return, prolonged in duration, excessive in amount, dark in color with a slight tendency toward clotting, hardly ever painful in the beginning, and leaving the patient fatigued, such is the type of menstruation in a woman with a mild, chronic myocarditis. Ergot or hydrastis has but little influence here, but iron given hypodermically in the intervals and liberal doses of digitalis started three or four days ahead of time and continued during the period, give most satisfactory results. In a number of these cases, the classical symptoms of cardiac insufficiency developed in the course of pregnancy, but under proper treatment, subsided without causing permanent harm. In other instances, he was glad to have had fair warning, because he was thereby enabled to warn the family of the possibility of alarming complications, and to have the patient transferred to the hospital.

Concerning low blood pressure in obstetrics, he quotes Williams in "Medicine and Surgery": "A low blood pressure may occasionally be encountered in women classed as neurasthenics. Lynch has pointed out that shock or even death is apt to follow delivery in such an individual."

Regarding hyperthyroidism, it must not be forgotten that an enlarged thyroid is the rule and not the exception in pregnancy; that increased heart-frequency is physiological, and that all the outside influences working on a primipara tend to unbalance the most stable physical equilibrium. The patient must be made to feel that as long as she follows his, and only his, advice, she will be safely guided. Map out a daily routine divided between a reasonable amount of outdoor exercise, quiet and wholesome reading or housework, and try to control her associates, and many a case of seemingly serious disturbance of the internal secretions will resolve itself into a case of perfect physiological conditions. But it is of the utmost importance that such patients should be made to keep in constant touch with the physician, and that they come to him for advice on even seemingly unimportant questions.

Where there is moderate myocardial weak-

ness, it is well to impress upon the patient that she is likely to have a longer labor than the average case; that it will take longer to prepare mother and child for the passage through the parturient canal, but that this retardation is amply compensated by the thorough preparation of the parts for final delivery. Many of these cases have false labor pains for several weeks, and these are explained in the effort to control the mind as well as the body.—(*Indianapolis Medical Journal*, January, 1918.)

Hydrotherapeutics In The War.

Guy Hinsdale, Hot Springs, Va., writes that the British have recognized for some time that the physical treatment and training of disabled and discharged soldiers is a serious and urgent problem whose solution is most needed to prevent the formation of an army of cripples. They are now providing to a large extent with an adequate and well ordered system of hydrotherapy, electrotherapy, radiotherapy, mechanical treatment, and massage. A clinic for the physical treatment of disabled officers was opened a year ago in London and has provided treatment for the officers who are patients in the various hospitals of London. The equipment includes several new features such as the "whirl-pool" and "sedative pool" baths. This clinic is financed by the British Red Cross Society and is known as the Red Cross Clinic for Physical Treatment of Disabled Officers. It is under careful and constant medical supervision and is free to the officers of all the allied nations. Similar work is being done, we understand, at some of the command depots, convalescent camps, military hospitals, and Red Cross hospitals.

There is at present great need of competent medical men and attendants to carry out these forms of treatment in the British hospitals where suitable installations are being set up, but where a competent personnel is lacking owing to absence of so many medical men at the front. An appeal has lately been sent to the writer for several American physicians who are serious students of physical treatment and who would care to avail themselves of this opportunity to undertake physical treatment on a large scale. Special training and demonstrations in the methods now in use for disabled soldiers would be provided. Besides the need

of qualified physicians there is also a great need for nonmedical unqualified attendants. This is an opening for bright men who have been accustomed to hydrotherapeutic treatment and who are able to keep records and measurements.

The problems which will confront the American surgeon will not differ greatly from those which have been met with by the British surgeons. It is a well recognized fact that in a great majority of cases physical treatment should be provided as an integral part of the re-education of the wounded and that the degree of progress made ought to be checked up by accurate measurements and tests. There will, therefore, be a great need for the services of experts in physical treatment in all lines. One of the most important phases of physical treatment is hydrotherapy and I am convinced that every general military hospital should be provided with an adequate hydrotherapeutic equipment. As stated above, the English, the French, and the German general hospitals make free use of baths, douches, packs, and associated measures such as massage and general physical therapy.

Hinsdale, therefore, proposes the organization of a hydrotherapeutic unit to be attached to each general military hospital and, especially, the reconstruction hospitals. In order to assure greater efficiency, it is desirable that this hydrotherapeutic unit should be standardized, both as to general plan and equipment. Such a unit with a complete equipment suitable for a five hundred bed hospital could be provided at a cost of approximately \$10,000. This cost would include a suitable wooden building, conveniently arranged with rooms for the reception and treatment of the patients, with tubs providing ordinary baths and the so-called continuous baths, the apparatus for baths *l'eau courant*, or whirling baths, most highly regarded by those who use them, and a simple form of apparatus for giving douches controlled as to time, temperature, and force of pressure. A plan for such a hospital with specifications for apparatus has been submitted to the surgeon general of the army.

Hydrotherapeutic apparatus has been going through an evolutionary progress during the last twenty years and it is well recognized that in America we have perfected bathing apparatus far beyond that in use in England and on the Continent, but while we have the best

apparatus we have not always been so ready to use it as the French and Germans have been and we can learn some lessons from their practice in the present war.

In addition to the hydrotherapeutic measures which could be carried out in the units attached to the general hospitals, we should follow the example set by France, England and Germany, in making use of the watering places which have facilities for the treatment of disease. Many cases of trench foot, rheumatism, arthritis, and joint affections resulting from wounds have been treated at the various bathing resorts in Europe. The United States Government owns one spa, the Hot Springs of Arkansas, and also owns rights in a considerable bathing establishment and hotel at Fort Monroe, Va. These could be made use of at once, and the private establishments could also be utilized should the number of patients make this necessary. The State of New York owns the Saratoga Springs, and would, no doubt, be glad to co-operate with the United States by placing the springs and equipment there under the control of the Government. Such private establishments as the Virginia Hot Springs, the Greenbrier White Sulphur Springs, the French Lick, the Glen Springs, Sharon and Richfield Springs of New York, offer waters of high therapeutic value, trained attendants, physicians who have specialized in hydrotherapeutics and, in many cases, excellent equipment. All these could be made use of and no doubt will be made use of when occasion arises. The famous resorts of Buxton, Harrogate, and Bath, in England, and Aix-les-Bains, and Vichy, in France, are full of soldiers who are taking a cure to fit them for renewed service at the front. Our own country is rich in mineral springs, and if a general plan of organization is adopted, all these may be brought into service as soon as the occasion arises. For the present, we must devote our attention to the perfection of a hydrotherapeutic unit suitable for use in connection with the hospitals already established or to be established, and, at the same time, make careful and far-seeing plans for the full utilization of all the hydrotherapeutic resources of the United States.—(*N. Y. Medical Journal*, Nov. 10, 1917).

Means Of Prevention And Specific Treatment Of Epidemic Meningitis.

In the *Journal of the American Medical Association* of September 1, 1917, Flexner states that the more effective means of dealing with "carriers" is by making the application of chloramine in an enduringly active form a simple procedure. Dunham and Dakin have devised and recommended a solution of dichloramine-T in oil and applied by means of a hand spray designed for paraffin oil. With such a spray it has been found possible to render the naso-pharynx sterile for aerobic bacteria in a few hours. Subsequently bacteria reappear, of course, from the dust, etc. Thus far only a small number of tests on carriers of the meningococcus have been made, but the results are promising. The method of procedure is here given:

1. The nose is cleared with salt solution or with 0.25 per cent. aqueous chloramine-T solution either by spraying or irrigation. The nose should be blown into a handkerchief between applications; and the chloramine T solution should be used thoroughly as a gargle.

2. When the increased flow of secretion from the nose has subsided, the oil solution of dichloramine-T is applied with an oil atomizer. The oil spray should be repeated at intervals so as to make at least four treatments daily about equally spaced from each other. The spraying should be thorough and the oil carried to all parts of the membrane accessible. The first few applications of the oil sometimes occasion sneezing, but tolerance is soon acquired and subsequent applications cause no inconvenience.

3. The preparation of the dichloramine-T oil embraces three steps:

First, the solvent eucalyptol (United States Pharmacopœia) is chlorinated. Five hundred Cc. are treated with 15 gm. of potassium chlorate and 50 Cc. of concentrated hydrochloric acid for twelve hours or longer, and then well washed with water and with sodium carbonate solution. The water is drawn off and 15 gm. of dry sodium carbonate are added to the oil, and the whole is allowed to stand for twenty-four hours. The oil is filtered off, and dried with a little solid calcium chloride, when it is ready for use.

Second, the paraffin oil is chlorinated. To 500 Cc. of commercial paraffin oil 15 gm. of potassium chlorate and 50 Cc. of concentrated

hydrochloric acid are added, and the mixture is exposed to light, preferably sunlight, for several hours. It is then transferred to a separating funnel and washed successively with water, a solution of sodium carbonate, and again with water. The opalescent oil is drawn off, solid calcium chloride added in small quantity, and about 5 gm. of animal charcoal. On subsequently filtering through paper, a yellowish oil, ready for use, is obtained.

The third step is the preparation of the oil solution of dichloramine-T for use in the spray. Two-tenths gm. of the dichloramine is dissolved in 2 Cc. of the chlorinated eucalyptol without heating. When the solution is complete, 8 Cc. of the chlorinated paraffin oil are added. After mixing, the solution is ready for use. The solution contains 2 per cent. of dichloramine-T. It is relatively unstable, and should be discarded as soon as a distinct precipitate makes its appearance. An opalescence or moderate cloudiness is not evidence of material deterioration. It is a safe rule not to use the completed solution for more than three or four days after its preparation. It should be protected from strong light and is best kept in a cool place. Where large quantities are needed, a stock 10 per cent. solution of dichloramine in eucalyptol may be prepared and kept on hand in a cool, dark place for dilution with the paraffin oil, as 1:4, as required. The eucalyptol solution will suffer little deterioration in a month.—(*Editorial, Therapeutic Gazette*, January, 1918).

Alcohol.

In these days of prohibition, anything savoring of praise of alcohol as a beverage is so rare, that we present the following editorials, taken from the *Critic and Guide*, February, 1918:

ALCOHOLIC BEVERAGES A SAFETY VALVE?

One never knows when he is going to put his foot in it. At least I never do. Perhaps it is because I never care to consider the consequences. Be it as it may, at least three or four times during each year I am sure to write something which sets a goodly number of my subscribers all agog, putting some of them into a condition which may be fitly described as one of fury or frenzy. Now it is a Billy Sunday editorial which excites the indignation of some of my readers, then it is a statement that

there are better ways of settling international disputes than the archaic brutal method of war, then it is something else.

My last offence has been my declaration that it would be best for the community at large if alcohol in its various and numerous tempting forms disappeared from the face of the earth. I never thought that I had so many subscribers who were such warm friends of $C_2H_5O\ H$. Well, I am sorry, and to pacify them I will reproduce here what a very clever lady has recently said about the great value of alcoholic beverages as a safety valve for human emotions. Let Elizabeth alone bear the responsibility for her statements, but truth demands that I say that many sociologists and psychologists believe as she does.

Yes, in Elizabeth Severn's opinion, the subconscious desire which leads to drink is a vent for repressed emotions, and a manifestation of a marked loss of psychic balance, which, however, in ill-regulated lives, may be a useful and even necessary escape-valve. For this reason she calls the infliction of compulsory prohibition a serious matter and an illegitimate procedure which shuts off the only means of emotional release available to the majority until a constructive substitute is provided. "To do so is merely to strike at symptoms, not causes. There is no value, either practical or moral, in preventing the act, while the cause remains untouched." . . . "To . . . purge the world of this, one of its greatest evils, would mean subconscious re-education on a wholesale plan and is not at the present time practical except in individual cases. Therefore, nothing but damaging explosions can be expected with the shock absorber intoxication entirely removed."

A DEFENDER OF ALCOHOL, TOBACCO, TEA AND COFFEE.

Professor Patrick (*Interstate Med. Jour.*), points out that the American people are now consuming annually about two thousand gallons of alcoholic liquors, half a thousand million pounds of tobacco, a thousand million pounds of coffee, and nearly a hundred million pounds of tea, and thinks that these substances are not taken as luxuries or as evidences of vice, but that the demand is rooted somewhere in the brain cells of human beings. Persons who use these drugs have found by experience that their employment in moderation

adds to the comfort of existence. The fact that alcohol, tea, coffee and tobacco are so universally used is a tribute to their good effects. It has been proven that alcohol diminishes functional activity, but this indicates only that this drug should not be used when full efficiency is desired, and that it may often be employed with advantage as an agent of relaxation and for the purpose of benumbing and controlling mental or nervous phenomena, which have been put into excessive activity under the stress of daily life. The use of all these substances, whether they be stimulant or depressant in their nature, are advantageous in that they diminish activity in parts which have been excessively active, and increase activity in other parts of the body, which, for the time being, have been quiescent. As Patrick puts it, alcohol places a temporary quietus upon the higher control of the brain centers and sets free the older and more basal centers, and so is a release obtained from the burdens of the modern strenuous life. Patrick says that alcohol and tobacco are generally an easy means of rest and relaxation, putting to sleep in a measure the higher brain centers while allowing the needed activity of the lower ones.

ALCOHOL AS AN ETIOLOGICAL FACTOR IN ARTERIOSCLEROSIS.

Dr. C. Janeway (*Boston M. and S. J.*, June 29, 1916), declares that a study of his own private cases showing hypertension lends no support to the view that alcohol has an important influence in the production of arteriosclerosis and associated cardio-vascular disturbances. Of 3,971 arteriosclerotic patients whose histories as to alcohol were known, 37.5 per cent. were total abstainers; 31.5 per cent. took alcohol only occasionally in small amount; 18.1 per cent. were habitual temperate drinkers. Those who regularly or occasionally used alcohol in excessive amounts were but 12.9 per cent. of the total.

Some Rare And New Lung Diseases.

In former days physicians very reluctantly made the diagnosis of phthisis, especially in the stages where its presence was not evident to laymen. Today the tendency is the other way, and with our new facilities for relief and cure, the physician gives the sanitarium the benefit of the doubt, and is inclined to label all chronic wasting lung diseases "T. B."

The postmortem evidence in sanitariums warns, however, that even sanitarium cases of many years' duration have proven not to have been tuberculous; and it is therefore desirable that the practitioner should know the diseases which are most apt to be mistaken for phthisis.

The recognition of obliterating *fibrous bronchiolitis* dates from 1901. Postmortem the cut lung shows grayish white nodules resembling miliary tubercles, and the X-ray plate shows them also. Many irritating gases leave it in their wake, and it is said to follow measles and whooping-cough. The symptoms of this occlusion of the bronchioles are dyspnea and cyanosis.

Pulmonary blastomycosis appeared in medical literature perhaps as recently as 1914. Although there are usually abscesses to be found on the surface sooner or later, it sometimes comes on exactly like tuberculosis—a cold going on to chest-pains, fever, dyspnea, cough, bloody sputum, hemorrhages, emaciation. It should be suspected whenever apparently phthisical patients show no bacilli. The blastomyces may be found in pus or sputum. It is usually fatal. Potassium iodide and tonics may help.

The California disease, *coccidioidal granuloma*, has an organism akin to the preceding, and has been known about twenty-one years. It usually begins in the lungs, developing skin lesions later, and proceeds exactly like tuberculosis, both in its symptoms and in its physical signs, as well as in postmortem appearances. There is more lymphatic involvement than in the preceding. All lung cases have died.

Aspergillosis of the lungs has been identified for about twenty years. It begins like bronchitis, with cough; then purulent blood-streaked sputum, indigestion, night-sweats, evening fever, emaciation, bronchial dilatation. It may begin with hemoptysis. It may cure itself, leaving lung induration. Potassium iodide and Fowler's solution may help.*

Sporotrichosis of the lungs should be known to all practitioners, though it is very rare. The patient may have a chronic cough, sputum, dyspnea, apical dullness and rales. The differentiation from tuberculosis is made by bacteriological study of the sputum. The infective organism flourishes on certain vegetables, and one case is said to have been due to the handling of coffee. No definite treatment has

been established, but as the disease affects "run-down" patients their upbuilding would be indicated. The disease has been found chiefly in the Mississippi Valley region, but it could probably be found elsewhere if all apparently consumptive patients were thoroughly examined.

The extraordinary resemblance of *streptothricosis* to tuberculosis when it affects the lungs and the apparent frequency with which it is met in ordinary practice (one sanitarium yielded two per cent. of cases), gives it especial importance in our review. Organisms of this family are found widely on foodstuffs, and hide frequently in carious teeth and tonsil crypts. Gaining access to the lung, it may involve one apex only, and slowly spread to adjacent parts and the opposite side. The cough sputum, purulent or bleed-streaked, the hemoptysis, indigestion, night sweats, pain, emaciation and fever are exact duplicates of those in tuberculosis. It may light up into active pneumonia at any time. The postmortem reveals fibroid changes with granular bodies exactly like miliary tubercles. An important point is that careless operations on the tonsils sometimes spread the infection to the lungs. The thread-like, branching organism is easily detected in the sputum. The patients usually go on steadily to death. It is said that iodide of potassium has had good results. There is need of earlier diagnosis. Building up of the general health is, of course, important.

One of the penalties attached to intercourse with the populations of the ancient continent of Asia is the importation of disagreeable new diseases to which they have for ages habituated. Among these diseases is one known to us as *distomatosis*, a disorder caused by the presence of the larvæ of a trematode worm, which larvæ are swallowed and grow, encysted, to maturity in the lung tissue. In the majority of cases the lungs alone exhibit symptoms, exactly duplicating those of tuberculosis, so that diagnosis outside of the laboratory is impossible. The eggs are in the sputum. Fortunately, immigrants alone have it as yet. They live perhaps thirty years, and may get well in a non-infected country.

Actinomyces, the "big jaw" of cattle occasionally, in Europe, affects the human, simulating tuberculosis of the lung. There are sulphur-like granules in the sputum which, with the microscope, show the growth.

Never diagnose chronic lung disease without sputum examination.—(Editorial *Maryland Med. Journal*, January, 1918.)

Book Announcements and Reviews

The Semi-Monthly will be glad to receive new publications for acknowledgment in these columns, though it recognizes no obligation to review them all. As space permits we will aim to review those publications which would seem to require more than passing notice.

The Conduction of the Nervous Impulse. By KEITH LUCAS, Sc. D., F. R. S. Revised by E. D. ADRIAN, M. B., M. R. C. P. Published by Longmans, Green & Co., New York. Price, \$1.50.

Lucas was interested in the mechanism of nerve conduction especially from the experimental standpoint. For a number of years he worked on this subject and his chief aim was to discover the physico-chemical change underlying the process of conduction. He believed that the key to some of the problems of the central nervous system lies in the study of conduction in peripheral nerves. In the present volume the author and his follower endeavored to present the results of their personal experimental researches in the phenomenon of conduction. Their chief object was to discuss not the question of why the nerve conducts but of how it conducts, also to show how far the phenomena of conduction in a peripheral nerve may be made the basis of the understanding of conduction in the central nervous system.

In a clear and concise manner the authors consider the following important features of nerve conduction: Measurement of Nervous Impulse; Stimulus on the Impulse; Complete and Incomplete Recovery of a Nervous Impulse; Summation of Impulse in Central and Peripheral Tissues; finally the Central and Peripheral Inhibition.

In conclusion, the authors consider and analyze the process of conduction in the central nervous system and in the peripheral nerve. On the basis of this analysis they picture the central nervous system as a network of conductors having different refractory periods, easily fatigued and capable of setting up a strain of impulses in answer to a single stimulus.

The work proves the profound erudition in physiological problems of Lucas and of its collaborator Adrian. The manner of pre-

senting the subject is highly commendable because of the simplicity and clearness of the text.

ALFRED GORDON.

Medical Clinics of North America. November 1917. **New York Number.** Volume I, Number 3, and January, 1918. **Boston Number,** Volume I, Number 4. Published bi-monthly by W. B. Saunders Company, Philadelphia and London. 8 vo. Illustrated. Price per year, paper, \$10; cloth, \$14.

These two numbers of the Medical Clinics of North America measure well up to the mark set by the two previous numbers. The *New York Number*, which contains 347 pages, gives contributions by, or reports clinics of, 22 of the recognized specialists in that city.

The *Boston Number* has 401 pages, in which are recorded 18 clinics and articles by men prominently identified with the Boston hospitals. Much of general medical interest is to be found in both numbers of these Clinics.

A Guide to the Organic Drugs of the U. S. Pharmacopoeia. Compiled and arranged by JOHN S. WRIGHT. Published by Eli Lilly and Company, Dept. F., Indianapolis, Ind. 220 pages, thin paper, bound in leather, vest pocket size. Price, 25 cents in stamps or coin, postpaid.

The third edition of Wright's Guide to the Organic Drugs of the U. S. P. is ready for distribution. This convenient reference book, now in its seventieth thousand, contains brief mention of the more important facts concerning the origin, properties and uses of official organic drugs as well as those of the third revision of the National Formulary. Other information of useful character refers to plant families, botanical and therapeutical terms, index of plant names, poisons and antidotes, Centigrade and Fahrenheit thermometer scale comparisons, phrases and abbreviations in prescription writing, Latin genitive case endings, symbols and signs used in prescription writing, metric system of weights and measures and a table of equivalents. It is one of those convenient references that becomes indispensable to both students of medicine and physicians in practice after its usefulness is demonstrated.

Editorial

Bill Regulating Marriages And The Issuance Of Marriage Licenses In Virginia.

For some years a need has been felt for the passage of some law that would prevent propagation of the species as a result of the

mating of habitual criminals, idiots, imbeciles, the feeble-minded, the insane, hereditary epileptics, and those who are at the time afflicted with contagious venereal disease. There has usually promptly developed in legislative bodies much opposition to the enactment of any statute that had for its object the control of births in this class of cases by vasectomy, or the like. Possibly realizing that half a loaf was better than none at all, the patrons of a bill before the recent legislature, lead by its doctor members, Drs. R. S. Martin and C. H. Rolston, together with Messrs. Hunter, Russell, W. A. Anderson, and Dillard, succeeded in having a law enacted, providing that "No woman under the age of forty-five years, or any man of any age except he marry a woman over the age of forty-five years, either of whom" comes within the class above specified, "shall hereafter inter-marry or marry any other person within this State.*.*.*".

Any clergyman or other officer authorized by law to solemnize marriages within this State who hereafter knowingly violates this law shall, upon conviction, be fined not exceeding one hundred dollars, or to be confined in jail not exceeding ninety days, or both. It is also provided that any marriage in violation of this act shall be voidable by the innocent party. Other paragraphs require that no clerk of court shall knowingly issue marriage license to such people, and that it shall be legal for any person knowing that an applicant for marriage is subject to any of the disabilities named in this act, to appear before the clerk to whom application for license is made, or before the clergyman or other officer and present evidence why such license should not be granted, or why such ceremony should not be performed. Right of appeal is likewise provided for.

The purpose of the law, as far as it goes, will stand approved by the best men in the medical profession of today. It would seem to be impossible to legislate on a subject of this character in a way that would be satisfactory to every one. However, although prohibiting marriage may not entirely control the situation, because of the failure of moral restraint with a large number of those persons with whom this law would be applicable—more especially the feeble-minded,—

there is little doubt but that a step has been taken in the right direction, and some good at least must result.

The Field of Internal Medicine.

Attention is called to an excerpt of an interesting and timely article by Wilcox on this subject.*

It is a proper cause for congratulation that medical men are thinking and writing upon the subject of the domain of internal medicine, for, upon the advancement and progress of our knowledge of the diseases embraced in that large field, depends, fundamentally, all medical progress. The problems of internal medicine underlie and sustain definite relation to the problem of all other branches of medicine and surgery. We must begin to think, speak and lay stress upon the fact that diseases affecting mankind, in the largest number, fall within the province of internal medicine.

It is just as true that death, the antagonist of medical and surgical science and art, occurs most frequently in the large group of diseases of man embraced in this branch of medicine. Excluding all of surgery, obstetrics and "narrow" specialities, internal medicine stands out more and more as the broadest specialty. Physicians who limit themselves in practice to these diseases must be dominated or described by a term more complete than the present-day term "diagnostician," for they must not only recognize and diagnose diseases, but they must survey and study diseased states in patients with the purpose of discovering group diseases, if any, in the same patient, unraveling the etiologic factors and proposing and arranging properly ordered measures of treatment. Patients often have complex and involved conditions. Conditions or diseases, varied and apparently unrelated, are observed in patients occurring in different locations or systems, displaying manifold symptoms from specialized organs or tissue.

No disease illustrates this idea better than does syphilis. The syphilitic patient consults the ophthalmologist for treatment of symptoms of pain or loss of function of the eyes; yet, in the nervous system or cardio-vascular system, the ravages of the disease may be making inroads far more important to combat.

Again, in chronic oral focal infections, one

of the latest and greatest contributions of internal medicine to medical progress, is found an illustration of this special work of the internist. Chronic infections in the jaw at the roots of teeth, for instance, often set up metastases of like or related infections in fields remote from the mouth; it may be in the form of nephritis, neuritis, bronchitis, endocarditis, cholecystitis, etc. In the same patient emaciation, anemia, gastropnoia, and nervous symptoms may be found. Only the internist, a man trained in diagnostic methods and therapeutic knowledge, can properly evaluate these complex and related conditions and point out a plan of proper management.

In the South the internist is not generally recognized by the profession as in the North. Musser, of Philadelphia, and Janeway, of New York, were eminent examples of this type of specialist in recent past decades. More now than then, the advances and progress of medicine, with modern aids in diagnosis and the discovery of the cause and association of causes of medical diseases, make the training and knowledge of this specialist of greater use to every community. The real internist, says Wilcox, is not only a specialist, but, what is far more rare, an expert.

Piedmont Sanatorium.

The State institution for the care and treatment of colored persons suffering from tuberculosis, will begin operation about the middle of April. Dr. H. G. Carter, recently assistant resident physician at Gaylord Farm Sanatorium, Wallingford, Conn., has been elected superintendent, and the head nurse will be Miss Mary E. Gilliam, a graduate of the training school of Catawba Sanatorium. The cost to each patient has been placed at the very moderate figure of \$2 a week. The capacity of the completed buildings is forty patients, and there are already several applications for admission.

Piedmont Sanatorium, which is located a short distance east of Burkeville, is the first State institution of the kind devoted exclusively to the needs of negro sufferers from tuberculosis. It is ideally located, the buildings constructed for the work of the institution being in the center of the farm, which contains 310 acres. The farm is bounded on two sides by railroads, the Norfolk and Western and the Southern, the land is roll-

*See under Analyses, Selections, etc., in this issue.

ing and well-drained, and there is a considerable acreage under cultivation. The completed plans in time to come will provide for the needs of at least eight hundred patients. Besides a pavilion accommodating forty patients a substantial and comfortable two-story service building of brick construction has been completed, furnishing quarters for the staff, and making proper provision for the conduct of the work of the institution. A hot water heating system has been installed, while electric power will be furnished from the plant at Crewe, Va., some three miles away. A driven well, nearly three hundred feet in depth, furnishes adequate water supply for present needs.

Rehabilitation Of Disabled Soldiers And Sailors.

The Federal Board for Vocational Education, Washington, D. C., calls attention to the immediate and pressing demand for the training of teachers of occupational therapy to take care of the handicapped men on their return from France. It has been estimated that 100,000 out of every 1,000,000 soldiers sent overseas will return to the United States during the first year of fighting, and that 20,000 of these will need some kind of vocational reeducation or rehabilitation. It is claimed that every dollar invested by the Government in this work will bring handsome returns in national efficiency. Germany uses 85 per cent. to 90 per cent. of her disabled men back of the lines, and the majority of the remaining 10 per cent to 15 per cent are entirely self-supporting. Belgium, whose devastation has been the greatest, was the first nation to successfully use over again her men, and, not only has the large Belgian reeducation center at Port Villez been self-supporting, but, in addition, it has paid back to the Belgian Government the entire capital cost of installation.

It is certain that our own economic future depends to a large extent upon the rehabilitation of those disabled both in war and industry, and an emergency program has already been outlined for the work.

Some Bad Results Reported From Use Of Arsphenamine And Neoarsphenamine.

The following statement is made in a letter just received from the director of the Health Service, Washington, D. C.:—

"In view of the reports in current medical literature of untoward results from the use of arsphenamine and neoarsphenamine, I have to request that you give publicity to the statement that it is requested that samples of any lots of these arsenicals which have shown undue toxicity be forwarded to the Hygienic Laboratory for examination.

"In sending these samples it should be ascertained that the lot number is the same as that of the ampoules used on patients. The samples sent should, if possible, be accompanied by a brief note stating the approximate body weight and age of the patient, the dose and dilution of the drug given, the symptoms and result; that is, whether fatal or not."

A Few Promotions Noted Among Virginia Doctors.

The following recent promotions have been noted for some Virginia doctors:—Dr. Leslie Wiggs, of this city, to past assistant surgeon in the United States Navy; Dr. Waller N. Mercer, of this city, to captain in the medical reserve corps, with the National Guard, and he is now at Camp McClellan; Dr. C. J. D'Alton, formerly of Petersburg, Va., but who was practising in New York at the time of entering the service to captain in the medical reserve corps, and he is now stationed at Camp Cody, N. Mex.; and Dr. J. E. Rawlings, formerly of Fredericksburg, Va., to captain, medical reserve corps. Dr. Rawlings, who was stationed at a hospital in England and was later sent to the front in France is again at a base hospital in England.

Control Of Venereal Diseases In Army.

Great efforts continue to be made to prevent venereal diseases in the cantonments in this country. The American Expeditionary Forces are similarly protected. General Pershing holds to strict account those officers charged with enforcing the orders excluding lewd women from the vicinity of the camps, officers and soldiers being warned against associating with such characters on pain of punishment. As a result of this care venereal cases among the forces in France registered an annual rate of 44.2 per thousand for the week ending March 1, 1918, one of the lowest rates in the records of the department for any branch of the service. This is in marked con-

trast to the high rate in the men fresh from civil life, at the time of being drafted into the service.

The National Guard has not only registered the lowest rate for any one week (an annual rate of 43.8 per thousand) but has maintained a consistently good record since December 7 last to the present.

Dedication of McLean Auditorium At Chickamauga Park.

On March 11, occurred the dedication of the Warden McLean Auditorium at Camp Greenleaf, the military medical school at Camp Chickamauga, Ga. This \$10,000 auditorium was presented on behalf of Mrs. Wm. McLean, whose son, Warden McLean, was accidentally killed while in training at Ft. Oglethorpe. The occasion was made notable by the presence of the Surgeon General of the Army and his staff as well as many distinguished medical men from military and civil life. Also about 1,000 doctors in training were in attendance.

Norfolk Naval Hospital To Be Enlarged And Improved.

It was announced the middle of last month, that the naval hospital, at Norfolk, Va., would be immediately vacated and patients removed to the St. Helena reservation hospital, so that the hospital may be enlarged and improved. It will then be used for convalescent and slightly wounded soldiers and sailors, who will be brought over in hospital ships from time to time, to relieve the congestion at hospitals in France.

It is announced that the Federal government has taken over the agricultural fair grounds and buildings at Mineola, N. Y., and they will be converted into a convalescent hospital accommodating 10,000 patients.

Major Junius F. Lynch, M. R. C.

Of Norfolk, Va., and former surgeon-general of the National Guard of Virginia, has cabled his daughter, announcing his safe arrival "somewhere in France". Before going abroad, he was stationed with the ninety-third Division of the regular army.

Scarcity Of Quinine.

The shortage of quinine in this country is being felt at Camp Lee, Va., to the extent that orders have been issued that it shall only

be used for the treatment of malaria. Even in this case, the diagnosis of malaria shall be confirmed by microscopic examination.

Chicago Session Of A. M. A.

The Local Committee on Arrangements is actively engaged in perfecting plans for the comfort and entertainment of their guests at the annual session of the American Medical Association in Chicago, June 10-14. Dr. Ludvig Hektoen is chairman and Dr. Charles J. Whalen secretary of the committee, but all correspondence with the Local Committee on Arrangements or any of its sub-committees should be addressed to 25 East Washington Street, Chicago. While general headquarters will be at Hotel Sherman, various sections will be held at other hotels.

There will be five days of clinics given under the auspices of the Association, beginning Thursday of the week previous to the opening of the meeting and continuing up to Tuesday of convention week. They will cover every phase of medicine, surgery and the specialties, and will be conducted by prominent clinicians. A general meeting will be held on the evening of June 12, at which eminent physicians who have been active in the medical military service of our nation and its allies will take part. There will also be a patriotic meeting on the evening of June 13, which will be addressed by men prominent in public affairs. Alumni and section dinners will be held on Wednesday evening, the 12th, from 6 to 8 o'clock, so as not to conflict with other events which are being planned.

New Appeal For Physicians.

Increase in the number of calls to active duty of members of the Medical Reserve Corps indicates need of enrolling physicians as new members. March 1, there were 144,869 physicians in the 48 States and the District of Columbia. The Surgeon General's report for March 22 gives a total of 18,138 officers in the Medical Reserve Corps, and of these, 14,411 are on active duty. Reports indicate that the officers are being admitted to active duty in greater numbers than they are being admitted to the Reserve Corps. Since last Fall, Virginia has improved her position in the number of physicians recommended for the service, having come from the thirty-ninth to the twenty-first place in the percentage of doctors who have volunteered for service.

Nevada has supplanted Arizona in the first place, and Arkansas has taken Wyoming's place with the lowest percentage.

Attention is again called to the fact that physicians are urged not to relinquish their practice until they are advised by the Surgeon General's Office that they are soon to be called to active service, as 15 days is allowed in order that a physician may adjust his affairs between the time that he receives his orders and the date on which he will be expected to report.

Dr. James R. Soeicht

Has been appointed assistant to Dr. P. S. Schenck, health commissioner of Norfolk, Va.

Members Of State Board Of Medical Examiners.

Governor Davis has issued commissions to members of the State Board of Medical Examiners, each for the term of four years, beginning April 1, 1918, as follows:—First district, Dr. J. H. Ayres, Accomac; Second District, Dr. P. St. L. Moncure, Norfolk; Third District Dr. J. E. Warinner, Richmond; Fourth District, Dr. J. Bolling Jones, Petersburg; Fifth District, Dr. R. S. Martin, Stuart; Sixth District, Dr. J. W. Preston, Roanoke; Seventh District, Dr. P. W. Boyd, Winchester; Eighth District, Dr. S. W. Maphis, Warrenton; Ninth District, Dr. W. W. Chaffin, Pulaski; Tenth District, Dr. Robert Glasgow, Lexington.

Dr. J. L. Jennings, Danville, was named as the homeopathic member of the Board, and Dr. E. H. Shackelford, Richmond, as the osteopathic member.

Dr. John F. May,

Of Waverly, Va., was a visitor in this city in March.

Dr. and Mrs. A. W. Terrell,

Lynchburg, Va., were recent visitors in Florida.

Dr. D. Mott Roberston,

Spout Spring, Va., has been elected vice-president of the Farmers' National Bank, shortly to be opened at Appomattox, Va.

Dr. E. T. Brady,

Roanoke, Va., is in Pittsburgh, Pa., where he has accepted the position of Roentgenologist at the Allegheny General Hospital, for the duration of the war.

Dr. Beverley R. Tucker,

Of this city, has been appointed a member of the National Mental Hygiene War Work Committee.

Orthopedic Hospital To Be In Richmond.

The State Orthopedic Hospital for which provision was made at the last General Assembly of Virginia, is to be established at the Medical College of Virginia and will be operated in connection with the Memorial Hospital, this city. Owing to the high cost of building materials at this time, it was deemed advisable to have the new hospital conducted as a special ward of Memorial Hospital for the present. It will be under the direct supervision of Dr. William T. Graham, of this city.

Dr. Henry A. Wiseman,

Who left his home in Danville, Va., in command of Battery E, First Virginia Field Artillery, has been transferred to the medical corps with the rank of captain.

The Lynchburg And Campbell County Medical Society,

At its last annual meeting, elected the following officers for the present year:—President, Dr. P. M. Strother; vice-president, Dr. J. W. Walters; secretary and treasurer, Dr. Robert P. Kelly. All of these are of Lynchburg.

Married

Dr. Meade Stith Brent, resident physician at the Central State Hospital, Petersburg, Va., and Miss Helen Irving Wilson, of the same city, March 21.

Dr. Herman Hertzberg, Hopewell, Va., and Miss Katherine Wolf, Richmond, March 19.

Dr. William Arthur Strole, Norfolk, Va., and Miss Marie Kelly, Baltimore, Md., February 27.

Dr. Robert S. Carroll, Asheville N. C., and Miss Grace Potter, Chicago, Ill., February 28.

Dr. Hunter S. Woodberry, University, Va., and Miss Ruby Fontaine Davis, Enon, Va.,

April 8. Dr. Woodberry is at present a member of the University of Virginia Base Hospital No. 41, stationed at Greenville, S. C.

Dr. Sam Wilson,

Lynchburg, Va., was a recent visitor in Petersburg, Va., having gone there to attend the Brent-Wilson wedding.

Dr. Thomas D. Merrick

Returned to his home in this city. last month, after a stay of six weeks in Philadelphia.

Capt. W. Wallace Gill, M. R. C.,

Richmond, who was connected with the aviation examining unit in this city, is now at Ft. Monroe, Va.

Dr. Claude N. Rucker,

Who, as a member of the Medical Reserve Corps, has been stationed at Atlanta, Ga., recently visited his family in Clifton Forge, Va.

Mobile Hospital Unit To Be Formed.

It is announced that a unit is to be formed in St. Louis, to be composed of twelve surgeons, ten women nurses and forty-three enlisted men, to form the first mobile hospital unit to be sent abroad. This is to be a flying squadron of trucks and motorcycles, which will be almost directly behind the firing line and in advance of the evacuation hospitals.

Dr. Stuart McGuire To Join Unit Shortly.

It is expected that Dr. Stuart McGuire, head of the Medical College of Virginia Hospital unit, will join his unit at Camp Lee, the middle of April.

Dr. Edward McGuire will then be in charge of St. Luke's Hospital, the private hospital of Dr. Stuart McGuire, until June 1, at which time it is expected all patients now there will have been discharged, and the hospital is to be closed until Dr. Stuart McGuire's return.

Dr. A. C. Fox,

Waynesboro, Va., was a recent visitor in Charlottesville, having taken his wife to the University Hospital for treatment.

Dr. Richard P. Bell,

Staunton, Va., is another of the prominent surgeons of this State who has offered his services to the government and been com-

missioned in the Medical Reserve Corps of the Army.

Higher Rank Asked For Medical Officers.

Surgeon General Gorgas, U. S. A., before the Senate Military Committee, last month, urged the creation of higher ranks in the Army Medical Reserve Corps. He advocated a bill by Senator Owen, of Oklahoma, to provide for thirty-five major-generals and an equal number of brigadier-generals in the medical reserve corps, and other grades in proportion.

Qualify For Positions At Virginia Hospital.

Dr. B. H. Gray and Dr. Joseph Bear have qualified before the City Clerk for positions at the Virginia Hospital, this city, the former as a member of the visiting staff and the latter as chief obstetrician.

Hospital To Be Built At Chatham.

Mr. John Hurt, a well-known resident of Pittsylvania County, has announced that he will build at Chatham, Va., the county seat, its first hospital, which will bear the name of Hurt Hospital.

Location Filled—Another Open.

Since publishing the list in our March issue giving names of locations in need of doctors, we find that the one at Charlotte C. H., Va., had been filled by Dr. William R. Martin, who moved there from Bedford County.

There is, however, an opening at Faber, Va., R. F. D. No. 2, for a physician for contract and private practice. Any one wishing to know about this place, may communicate with Dr. James R. Shacklette, Elkton, Va., who recently moved from Faber, or with Mr. E. C. Warwick, of Faber, R. F. D. No. 2.

Dr. Hugh H. Trout,

Roanoke, Va., it is announced, will close his private hospital, the Jefferson Hospital, June 1st, at which time both he and Dr. A. P. Jones will go to France in the United States service.

The American Therapeutic Society

Will meet in Richmond, June 7 and 8. This society is limited to 200 members, about six of whom are residents of this city. Dr. W. Wayne Babcock, Philadelphia, and Lewis H.

Taylor, Washington, D. C. are president and secretary, respectively.

Asst. Surg. C. M. Hatcher,

Of the U. S. N. R. F., who is in training at the St. Helena Training Station, near Norfolk, visited his old home in Lynchburg, last month.

Dr. J. Milburn Dougherty

Has returned to his home in Nickelsville, Va., after a visit to New York.

The Health Department

Of Cumberland, Md., we note from their March Bulletin is prepared to examine blood specimens by the Wassermann test for syphilis free of charge, the examination being made each Friday.

Lt. Edgar Williams Young, M. R. C.,

Who was practising in Dinwiddie County this State until he entered the Medical Reserve Corps, has been invalided home, having suffered a fractured skull from a shell fragment on his third day in France.

Children's Year.

The plans for Children's Year which began April 6, 1918, prepared by the Children's Bureau of the U. S. Department of Labor, include activities designed to protect all children from the special dangers of war time and to save the lives of 100,000 little children within one year. Many of the physical defects which caused the rejection of one-third of the men coming up for examination in the first draft are believed to date from slight trouble neglected in early childhood.

The first test is the weighing and measuring of American children under five years of age. For this purpose a card has been prepared which gives a table of average heights and weights of boys and girls at birth, at every month of age from the 6th to the 48th, and at every year from the 5th to the 16th. One half of this card will be retained by the parents, so that they may make measurements and weights from time to time, and the other half will be reserved by the government for record purposes. Where a child is strikingly below the average weight for his height or is strikingly small for his age, it is expected that parents and guardians will seek and make use of expert advice about diet and daily care.

Dr. and Mrs. John W. Winston,

Of Norfolk, visited relatives at Bowling Green, Va., in March.

Dr. William P. McGuire

Has returned to his home in Winchester, Va., after a stay at Old Point Comfort and Fortress Monroe, Va.

Dr. A. Browne Evans,

Of Church View, Va., who was hurt in an automobile accident recently, was a patient at Stuart Circle Hospital, this city, in March.

Dr. Hugh Wolfe,

Resident surgeon at the C. & O. Hospital, Clifton Forge, Va., was appointed an assistant surgeon in the U. S. Navy, and left about the middle of March, for Washington, D. C., from which place he expected to be sent to Norfolk, Va.

Dr. E. L. Kendig,

Victoria, Va., was a recent visitor in this city, having come here on professional business.

Dr. Selma M. Mason,

Clarksburg, W. Va., recently visited relatives in the vicinity of Manassas, Va.

Dr. William Beverly Pettit,

For many years a resident of New Canton, Va., but for a year or more physician on British ships, it is announced, has accepted a position as physician at the Richmond Locomotive Works, and will make his home in this city.

Lt. Frank Wysor, M. R. C.,

Son of Dr. and Mrs. J. C. Wysor, Clifton Forge, Va., who was kicked by a horse at Ft. Oglethorpe, Ga., is rapidly improving and hopes soon to be well enough to come home for a furlough.

Dr. Roy K. Flannagan,

Chief health officer of this city, who at the beginning of the war offered his services to the Government, has been prevailed upon by friends to continue in his field of usefulness in this city, and has declined the proposal of the Government offering him an important position at the Federal powder plant at Nitro, W. Va.

Big Birth Decrease In Hungary.

On January 16, 1918, it was officially stated that before the war, 765,000 children

were born a year in Hungary, while in 1917, the number of births was only 328,000, or a reduction of 438,000. Infant mortality had increased from 24 per cent. prior to the war, to 50 per cent. in 1916.

Pathologic Physiologist Wanted.

The Civil Service Commission announces an open competitive examination for pathologic physiologist, for men only, May 7, 1918. A vacancy in the Hygienic Laboratory, Public Health Service, Washington, D. C., at \$3,000 a year, and future vacancies requiring similar qualifications at this or higher or lower salaries, will be filled from this examination. The duties of the appointee will be to study the pathology of industrial poisoning, with special reference to the manufacture of munitions.

Competitors will not be required to report for examination at any place, but will be rated on the following subjects, which will have the relative weights indicated, on a scale of 100: (1) Education, 30; (2) Experience, 40; (3) Publications to be submitted with application, 30.

A degree of M. D. from an institution of recognized standing, and at least two years' postgraduate experience in pathologic physiology, are prerequisites for consideration for this position, and applicants must have reached their twenty-first birthday on the date of the examination.

Applicants should at once apply for Form 2118 and fuller information stating the title of the examination desired, to the Civil Service Commission, Washington, D. C., or Civil Service Boards in the nearest city.

Dr. Thomas W. Koon

Was elected mayor of Cumberland, Md. for the third consecutive term at the meeting last month.

What Your Liberty Bond Will Accomplish.

Every American can do an individual service to his country by working, saving, and buying Liberty Bonds. Some of the things a \$50. Liberty Bond will do are herewith enumerated: It will protect 1,000 soliders from smallpox and 666 from typhoid. It will assure the safety of 139 wounded soldiers from lockjaw, the germs of which swarm in Belgian soil. It will render painless 400 operations, supply 2 miles of bandages—enough

to bandage 555 wounds. It will care for 160 injuries in the way of "first-aid packets". It will furnish adhesive plaster and surgical gauze enough to benefit thousands of wounded soldiers.

Every purchaser of a Liberty Loan Bond performs a distinct individual service to his country and to our boys fighting in France. Have you bought yours?

Dr. Charles R. Fugate,

Clinchport, Va., has entered the service as first lieutenant in the Medical Reserve Corps and has left for Ft. Oglethorpe.

Dr. J. R. Blair

Is in charge of a new first aid to the injured class which has recently been organized in this city.

Dr. Francis W. Upshur, U. S. N.,

Who has been on foreign duty, has recently returned from France, and, while on shore leave, is visiting his parents, Dr. and Mrs. J. N. Upshur, of this city.

Stenographers And Typewriters Wanted.

The U. S. Government is in urgent need of thousands of typewriter operators and stenographers and typewriters. Women especially are urged to undertake this work though the positions are open to both men and women. Entrance salary ranges from \$1,000 to \$1,200 a year and advancement of capable employees to higher salaries is reasonably rapid. Applicants must have reached their eighteenth birthday. Applications may be filed with the Civil Service Commission, Washington D. C., at any time. Examinations are held every Tuesday in 450 of the principal cities of the United States. Citizens with this knowledge are urged to use it at this time where it will be of most value to the Government.

Obituary Record.

Dr. Edwin Timothy Rucker,

One of the most prominent and beloved physicians of the Southside, died at his home in this city, April 9, at the age of 65 years. Although his death was the result of a complication of diseases, a fall he had a couple

of months ago, in which he fractured his right hip, is believed to have aggravated the trouble. Dr. Rucker was born in Amherst County, Virginia. He studied medicine at the Kentucky School of Medicine, Louisville, from which he graduated in 1877. He was for a number of years physician at Randolph Macon College, Ashland. Before the annexation of Manchester with this city, he was a member of the Manchester school board and city physician. Dr. Rucker was prominently identified with the business interests of the Southside and was connected with several medical societies.

Dr. Rucker's wife, who was Miss Anne Pendleton, of New Glasgow, Va., died about a year ago. He is survived by a son, Dr. M. Pierce Rucker, of this city, and one daughter.

Dr. William Winfield Nelson,

A well-known and popular physician of this city, died April 8, after only a few hours of serious illness. Although he had not been in good health for the past few years, he had kept up with his practice until a few days prior to his death. Dr. Nelson was born in Somerset County, Maryland, 38 years ago. He studied medicine at the University College of Medicine, Richmond, from which he graduated in 1901, after which he was for a time located at National Soldiers Home, Va. He later moved to this city, where he has since made his home. He was a member of his State and local medical societies. His wife and young son survive him.

Dr. Jose L. Hirsh,

A well-known specialist in children's diseases, died suddenly from heart disease, at his home in Baltimore, March 17. He was forty-six years of age and had graduated from the University of Maryland, School of Medicine, Baltimore, in 1895. He was connected with the faculty of this school at the time of his death. He is survived by his wife and two sons. Dr. Hirsh was a resident of Danville, Va., until early manhood.

Dr. Silvio H. Von Ruck,

Of Asheville, N. C., who with his father, Dr. Karl Von Ruck, has done a large amount of tubercular research work, died at a hotel in New York City, April 7. Dr. Von Ruck went to New York about a week prior to this time, and while there contracted pneu-

monia from which he shortly died. He is survived by his father, wife and a daughter.

Dr. Silvio Von Ruck was 44 years of age, and received his medical degree from University and Bellevue Hospital Medical College, New York, in 1899. He was associated with his father in conducting Winyah Sanatorium Asheville.

Dr. Augustus Rose,

Fayetteville, N. C., a Graduate of the University College of Medicine, Richmond, in 1901, died two days after an operation for appendicitis, in his home town, at the age of 45 years. He was also a pharmacist.

Mrs. Sallie Dudley Tompkins,

Mother of Drs. E. P. Tompkins, Roanoke, and George J. Tompkins, Lynchburg, Va., died at the latter's home, February 16. Her death was due to the infirmities of age, she being almost 84 years of age. Two daughters also survive her. The interment was in Lexington, Va.

Resolutions On Death Of Dr. F. M. Reade.

Whereas, it has pleased Almighty God in His wise Providence to remove from the scene of his earthly labors our co-worker and friend, Dr. Frank M. Reade; Therefore, be it

Resolved by the Visiting Staff of the Virginia Hospital that in the death of Dr. Reade the Staff and the Institution have lost not only a true and tried worker but a faithful friend and physician, one who gave of his best efforts to relieve the sick and the suffering and whose highest ambition was to minister unto the needs of his fellow creatures, especially those upon whom the hand of adversity was heavy. His genial countenance and kindly disposition won for him a warm spot in the hearts of those with whom he came in contact. Our friend and co-worker has passed to the life beyond, and while death has removed him from our midst, our memories will always cherish his kindly nature and sterling character;

Resolved, further, that this resolution be spread on our minutes, a copy sent to the papers, and a copy forwarded to the bereaved family to whom we express our heartfelt sympathy in this, their hour of sorrow.

JAMES W. HENSON.

McGUIRE NEWTON.

M. CALL. *Committee.*

Virginia Medical Monthly

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Official Organ of the Medical Society of Virginia

Published with the collaboration of the Publication Committee:

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The Medical Society of Virginia is not responsible for views or statements appearing in this journal except as authorized

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Original Communications.

INTRASPINOUS SALVARSAN.

By BEVERLEY R. TUCKER, M. D., Richmond, Va.

Some question has arisen as to the advisability of giving arsenical preparations intraspinally. This question was chiefly aroused by an article by Dr. Bernard Sachs, of New York, which appeared in the issue of the *Journal of the American Medical Association* for September 1, 1917. This question was successfully answered by Dr. John A. Fordyce, of New York, in the same journal in the issue of November 3, 1917.

In the *Southern Medical Journal*, September, 1916, the author, in conjunction with Dr. Henry Jackson Hayes, published a paper on "Syphilis of the Nervous System", in which reports of intraspinal treatments were given, and in the *Texas Medical Journal*, February, 1918, another paper was published in conjunction with Dr. Frank H. Redwood, entitled "Intraspinal Arsenical Treatment of Syphilis".

In view of Dr. Sach's article and the discussion following, it was thought well to review the subject, and hence the excuse for this paper.

The rationale of intraspinal treatment seems justified both from experimental work and clinical evidence. Tilney, in 1914, by vital staining, showed that the stain given intravenously, although reaching the dura and pia, did not penetrate the nerve tissue. Given intraspinally in much smaller doses, the stain readily penetrated deep into the

nerve tissues. When sections taken from this tissue were examined histologically, it was shown that the stain had travelled down along the sinuses of the pia mater. Flexner, in 1907, experimenting in poliomyelitis, demonstrated the fact that diseases of this nature could not be properly treated except by the intraspinal route. In epidemic cerebrospinal meningitis, for instance, serum intraspinally is almost a specific. As far as the method of treatment of these conditions and the treatment of syphilitic conditions of the same structures is concerned there is practically no difference.

Swift and Ellis, taking advantage of these facts, introduced the intraspinal method of treating syphilis of the central nervous system. With this method they were able to secure clinical and serological improvement in a number of cases which had not responded to intravenous salvarsan and mercury. This was a distinct advance in the treatment of syphilis of the nervous system. Many modifications of their work have been tried out. That introduced by Ogilvie seems to meet the requirements. In using the serum prepared according to Swift and Ellis, we were unable to estimate the arsenical content of the serum. Following the technique of Ogilvie, we know the exact amount of arsenic given at each treatment and are able to vary the strength of the serum at will. This brings us to a brief general consideration of the best method at present of treatment of syphilis of the nervous system.

The introduction of salvarsan into the cord is attended with little or no real danger to

the patient provided ordinary care is exercised in preparing the serum. The accidents which have occurred have been due usually to errors in technique. Neo-salvarsan should never be used, as it is not a stable compound and is broken up by the heating necessary to form the spirochetical bodies produced in the serum.

The opinion, held by many physicians, regarding the late syphilitic manifestations of the central nervous system, is that very little can be done in these cases. Others maintain that by using intravenous salvarsan they are able to secure improvement in any case which can be improved. As to the late and apparently hopeless cases, we will say from our observation of quite a large number, that we have been able to arrest many of them and, in addition, have noticed relief of pain and improvement in the bladder condition. This means a great deal to one familiar with the suffering of these poor unfortunates. We do not attempt to discredit the intravenous use of salvarsan, but have satisfied ourselves that there are certain cases in which, after many intravenous treatments with but little benefit, the employment of a standardized serum intraspinally has given improvement both clinically and serologically.

Salvarsan intravenously is very efficient in those cases of superficial involvement of the nervous system, manifested by headache, slight grades of cranial nerve palsy andluetie vascular conditions. In one of our cases with intense headache and decided mental confusion the Wassermann was rendered negative and the cell count reduced from 160 to 12 by eight treatments. Regarding the intraspinal treatment of syphilis of the central nervous system in its resistant forms, those formerly called metasyphilis, we feel that when the intraspinal method is systematically and judiciously employed it offers far more in the way of therapeutic possibilities than the use of mercury, or salvarsan intravenously. No matter what the clinical improvement has been, unless we can eradicate the biological evidences of the infection we have not completed our work and destruction is taking place.

We feel that mercury and iodide should be included in the medication of syphilis of the central nervous system. Properly regulated

rest and remedial and precision exercises should also be given the ataxic cases.

We use at the Tucker Sanatorium Ogilvie's method, which is briefly as follows:

Old salvarsan, or arseno-benzol, is used. 50 c.c. of blood are drawn into sterile centrifuge tubes by means of an ordinary deep injection needle. This fluid is at once centrifuged until all fibrin and cellular elements are thrown down. This takes about fifteen minutes at 3,000 revolutions a minute. With a sterile pipette 10 or 12 c.c. of serum are taken. The salvarsan solution is mixed in proportion of .1 gm. to 40 c.c. of freshly distilled boiled water, care being taken not to over-neutralize the solution. From this solution .1 to .2 c.c. are measured in a 1 c.c. tube graduated tenths and then mixed thoroughly with the serum. The serum is then inactivated at 56 degrees C. for 45 minutes. After cooling to body temperature, it is ready for administration.

The patient is put on either side near the edge of the bed with his knees flexed on the thighs and the thighs on the abdomen and the head and shoulders flexed as much as possible. A lumbar puncture is then done, using a Quincke needle, the syringe connected with the needle, and the serum allowed to run in by gravity or with very gentle pressure on the piston.

We do not use the large doses recommended by some authors. We never use more than .5 mg., and preferably not over .3 mg., believing small doses at more frequent intervals bring the best results. Nothing is to be gained by massive doses, and the possibility of injuring nerve tissue is reduced to the minimum when small doses are used. The serum should be used immediately, or certainly not later than three hours after its withdrawal. We do not withdraw any spinal fluid unless it is under considerable pressure, for, theoretically at least, increased intradural pressure helps the serum to penetrate more deeply into the nerve tissue. The patient is kept in bed without pillows and with the foot of the bed elevated. After twenty-four to thirty-six hours he is allowed to go home.

As to the number of treatments in any given case we are guided entirely by the laboratory examinations. We treat them until the Wassermann is negative and the cell

count and globulin are normal. Some cases respond to treatment much quicker than others. Every case should be watched after an apparent cure. A Wassermann, globulin estimation and cell count should be done several times a year for a number of years. A slight fixation of the Wassermann, increased globulin reaction or an increase in cells, indicates further treatment. It should be borne in mind that many cases giving a negative blood Wassermann give a positive spinal fluid Wassermann.

The following cases are illustrative:

Case 1.—L. R., male; occupation, clerk.

When first seen on November 2, 1916, was having convulsions. Patient was disoriented as to time and place. He talked disconnectedly and had typical parietic speech. He had the history of lues two years before with no treatment. Spinal fluid showed cells 40, globulin increased and Wassermann four plus. Up to the present time the patient has had five intravenous treatments and thirteen intraspinal injections. His last serological examination showed negative cells, negative globulin and negative Wassermann. Clinically he feels normal in every way. Speech is normal and memory very good. He has gone back to his original work in a railroad office. The diagnosis was early paresis.

This patient clinically is cured and serologically is cured

Case 2.—C. R., age 54. Complained of fainting, restlessness, sense of impending death and difficulty in breathing. Examination showed unsteady gait and station, exaggerated knee jerks, left pupil sluggish, no reaction of right pupil to light, diplopia and strabismus. Blood Wassermann four plus, cells eight, globulin positive. This patient has had fifteen intravenous and fifteen intraspinal treatments in the course of two years. April 25, 1917, the serum Wassermann was negative and fluid Wassermann one plus; June 14, 1917, his fluid Wassermann was negative, eight cells and no globulin. In March, 1918, his fluid was still negative in all respects.

This man is well both clinically and serologically. The diagnosis was postero-lateral spinal sclerosis.

Case 3.—W. A. D., age 40. Complained of vertigo, difficulty and weakness in walking

and mental confusion. His knee jerks were exaggerated; his left pupil was enlarged. Spinal fluid showed 150 cells, strongly positive globulin and a four plus Wassermann. He has had nine intraspinal treatments and his cells have dropped to none at all, no globulin reaction and only a suspicious Wassermann. He has been at his work for nearly a year and is mentally perfectly clear.

This man can be considered well both clinically and serologically but is to come at the end of a year from the last treatment for a re-examination. The diagnosis in his case was cerebrospinal lues.

Case 4.—T. O. B., age 35. Was nervous, knee jerks were exaggerated. Had hand tremors, his memory was poor, mentally he was antagonistic, and he was talkative and extravagant. His pupils were very sluggish. Examination of his fluid showed 18 cells, increased globulin and a 50 per cent Wassermann fixation. He received salvarsan both intravenously and intraspinally, and the last examination showed a negative Wassermann, negative cell count and negative globulin.

The diagnosis in this case was early paresis. This man is clinically and serologically entirely well and has been back at his work for nearly a year.

Case 5.—A. R. B. Had spells of amnesia, paresthesias, great difficulty in speech and vertigo. His right knee jerk was much exaggerated. He had fine hand tremors, left pupil was irregular, accommodation of his left eye poor, slight exophthalmos in his left eye. Mentally, he was confused. His blood Wassermann was negative. His spinal fluid showed a four plus Wassermann, cell count eighty, globulin negative. He received six intraspinal salvarsans. His fluid was rendered negative.

This man is clinically well and serologically temporarily well. He is to come back for re-examination. The diagnosis was cerebrospinal lues.

Case 6.—B. F. S., Age 40. Had great difficulty in walking, partial right hemiplegia, considerable loss of memory, ptosis, palsy of the right 6th and 7th nerves, imperative ideas, irritability, vertigo, difficulty in speech, exaggerated knee jerks, clonus on the right and swaying station. The spinal fluid showed positive Wassermann, positive globulin, no

cells. He was given twelve intravenous and intraspinal salvarsans and when he was discharged his total cell count was five, globulin weakly positive, Wassermann negative.

He has been back to work as a railroad clerk and is to come in in six months or a year for re-examination.

He is serologically practically negative, clinically cured. The diagnosis was probable gumma of the brain.

CONCLUSIONS.

1. We believe intraspinal salvarsan to be without danger, provided small doses are given and perfect asepsis used.

2. Each individual case should be treated until the Wassermann is negative and the globulin and cell count normal.

3. Frequent examinations of the spinal fluid should be done after an apparent cure and treatment again instituted if necessary, as shown by the Wassermann, cell count and globulin estimation.

4. Intraspinal salvarsan in most cases effects a great clinical improvement and not infrequently also eradicates the biological evidence of active syphilis.

5. Advanced cases of paresis are rarely benefited by any method of treatment.

6. In cases of syphilis of the central nervous system, intraspinal treatment properly given is far more efficacious than intravenous.

7. Intravenous treatment is chiefly beneficial in those cases of the central nervous system which give a positive blood Wassermann as well as spinal fluid Wassermann, and in many cases it is advisable to give both.

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RELATION OF INTERNAL SECRETIONS AND FAULTY METABOLISM TO MENTAL PERVERSIONS.*

By BITTLE C. KEISTER, A. M., M. D., Roanoke, Va.

We are today facing many and diverse theories on the subject of internal secretions, their effects on metabolism and their relation to mental perversion. We are all more or less familiar with the caprice and peculiar freaks played by the ductless glands. Take, if you please, the thyroid, the thymus, the pituitary, the pineal, etc., whose physiological functions

and pathogeneses are exciting the liveliest interest throughout the realm of the scientific world. Our foremost scientists are today puzzling their brains over these apparently insignificant organs.

The most definite clue to the results of internal secretions has been obtained with the thyroid. Recent experimental work on this gland makes it necessary to distinguish between the thyroid and the parathyroid tissue. The thyroid proper consists of two oval bodies located on the sides of the trachea at its junction with the larynx. It has no ducts and is composed of vesicles of various sizes, which are lined by a single layer of cuboidal epithelium, and contains in the interior a material known as colloid. This material is formed within the lining epithelial cells, and when the vesicles rupture it is discharged into the surrounding lymphatics. This colloid material has given rise to much speculative thought, and will be referred to later on in this paper.

We have what is known as a set of accessory thyroids, located along the trachea close to the thyroid, which have a similar structure to that of the thyroid, and no doubt their functions are somewhat similar.

The parathyroids are quite different in structure, being composed of solid masses of epithelial cells, which are not arranged in vesicles, and contain no colloid material. It has been demonstrated that when the parathyroids alone are removed, the animal dies quickly with acute symptoms, muscular convulsions, tetany, etc.; while, if the thyroids alone are removed, the animal may survive for a long period, but develops a condition of malnutrition, a slowly increasing cachexia, which may later assume a condition resembling myxedema in man (Hewlett).

We find after a cursory study of these glands, that from any form of traumatism or disease which might cause hypofunction or stagnation of their secretions, quite an array of peculiar symptoms arise. The mental forces become weakened and inactive, the skin becomes thick and immobile, owing to a collection of a mucin-like material in the corium, the connective tissue fibrils thicken, and the hair falls out. Weakness of the muscles and disturbance of sensation are associated with a general loss of intelligence. While these and many other pathological symptoms and conditions are the

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result of any serious impairment of the thyroids causing a loss of function, we have on the other hand from hyperfunction of the thyroid such a condition as exophthalmic goitre (Basedow's disease), with all of the horrible symptoms and suffering that usually accompany it, such as tachycardia, syncope, asphyxia and asthmatic breathing from excessive pressure, etc.

In discussing the subject of internal secretions, we do not confine our argument simply to the ductless glands, but include the pancreas, ovaries and other internal secreting glands.

The thymus gland, about which there has been much speculation of late years, belongs to the ductless class, and its physiological function is yet quite obscure. Formerly, this gland was supposed to reach its full development at birth, and subsequently to atrophy, being replaced by a growth of lymphoid tissue, but of late this belief has been abandoned and many observers have learned that it continues to grow, and that true thymus tissue may persist through life. Its proximity to the thyroids and parathyroids, and its similarity in origin would indicate that, like them, it might have some important specific influence upon metabolism.

There seems to be some reciprocal relation between this gland and the reproductive glands. We find that when this gland is removed it hastens the development of the testes, and when the testes are removed the thymus becomes slightly enlarged for a time prior to a retarded atrophy (Henderson).

There is no doubt in my mind but this same theory holds good in females under similar conditions. And if we will read between the lines and take the time to consider, we may be able to account for much of the peculiar phenomena that follow the spaying of our women by our "unbaked" gynecologists.

It is a well known fact among writers on the subject of internal secretions that the ovaries play an important part in the nutrition of both body and mind. In gynecological practice it is often observed that, by complete removal of the ovaries with the premature menopause that ensues, we have many distressing symptoms to follow, both mental and physical. There are cases when the mental condition becomes so serious that they are apparently fit subjects for an insane asylum.

It was the writer's unfortunate privilege some years ago to attend a number of this class of mutilated patients who had undergone complete ovariectomy. All honor to our modern gynecologists for their conservatism in the matter of not removing *in toto* these important glands from our young and middle-aged adult females.

One of the class of these patients above referred to, attended by the writer, was a young, refined, highly cultured lady, of twenty-six, who had been for some time previous quite nervous, bordering on hysteria. Acting on the advice of her relatives, she went to her young uncle's sanitarium in a distant city for treatment, and was operated for supposed cystic ovaries and hystero-epilepsy. After a few months' interval following the operation she began to run down both physically and mentally. At regular monthly intervals she had attacks of hallucination or cyclic insanity, preceded by a state of moroseness. At other times her mind would appear almost normal, but lasting only a short while, when she would gradually revert to the abnormal. This patient was under my observation at intervals for several months. She seemed to find temporary relief in coming to my office to take electricity and vibratory massage at irregular intervals, administered by a trained nurse, under my careful supervision. If I had been accessible to some reliable manufacturer of ovarian extract, I should have administered a thorough course of it, aided by other constructive treatment.

To keep this young lady out of the lunatic asylum and save her family from the remorse, I sent her to a specialist's sanatorium for the treatment of nervous diseases, where she remained only a few weeks prior to being sent back home to die. Being absent from the city when she returned, I failed to see her, but was informed that her physician diagnosed her last illness as cerebrospinal meningitis. This, in my judgment, was the closing scene of a typical case of *abnormal internal secretions*, complicated by auto-intoxication, superinduced by the complete extirpation of both ovaries of this young woman.

In older literature it was affirmed that not only the entire nature of woman, but her character as well, depended on the reproductive organs. Heimont said: "Propter solum uterum mulier est quod est." Chereau said:

"Propter ovarium solum mulier est, quad est." Virchow's statement that a woman is a woman simply because of her generative glands, is familiar to us all. Prof. Hochwart, in the *American Journal of the Medical Science*, August number, deliberately states that "The peculiarities of woman, both in body and mind, in fact, all the femininity which we admire in the true woman, are dependent on the ovary."

Every up-to-date physician and neurologist who has had ten years' experience, is quite familiar with these cases of psycho-neurosis among our women of the past decade, who have had the hospital craze to be operated upon for the prevention of child-bearing.

The function and sacred mission of these important organs are being studied with more care and zeal during the past half decade, and, instead of the *radical*, a more humane operation is being advised by our leading gynecologists, giving more consideration for after-results.

These psychoses are well known to the careful observer, from early puberty to the menopause, in a very large percentage of women who may be apparently healthy in all other respects.

Recent investigations have shown that the menstrual life of women is not a suddenly appearing or disappearing event. On the contrary, the phenomena seem to be a continuous wave-like condition which is not found before the beginning nor after the close of menstruation, either in early youth or old age. Much of the variability of mood and disposition may be explained in this, the often inexplicable vacillating temperament in the sexually mature woman.

The question of the not infrequent insanity during menstruation has been likewise discussed. Suicides have been quite frequent at these times. A. Pilez found intra-menstrual changes of the sexual organs in more than one-third of female suicides.

Among fifty-six shoplifters, LeGrand due Soulle found that thirty-five were "*unwell*" at the time of the crime. Icord, who has written quite extensively on the subject of internal secretions, observes that, in perusing the diary of a young girl, it does not require much perspicacity to discover the pages which were written during menstruation.

We observe these psychic disturbances at the

"climacterium," which is considered the most dangerous and critical age of woman. At the time when menstruation begins to be irregular, sometimes even months or a year before, women fall into a strange state of unrest, sometimes accompanied by sexual over-excitability. Deep depressions, a tendency to outbreaks of weeping, periods of irritability, psychic vacillations and a decrease of intelligence, evil forebodings, etc. These are some of the well known conditions in a large percentage of women during this critical time.

In some cases it reaches a very high degree of psychosis, as is shown in the following case that came under the writer's observation: The patient was a lady of forty-six years, whose family history was negative so far as I could ascertain. Her peculiarities in temperament and disposition were such that her family life was anything but pleasant. Her husband, who was a railroad man, was living apart from her, and her two married sons could not tolerate living under the same roof with her; hence, we can only surmise the kind of life she was living. After the first day or so of her entrance to my private sanatorium, I made several very thorough examinations and found quite an array of abnormal conditions, both physical and mental. Among the physical, my attention was first drawn to her enlarged thyroids and slightly protruded eyeballs (exophthalmos), fast and nervous heart sounds, marked tenderness over both ovaries with slight protuberance and tympanitis; speculum examination showed a double laceration of cervix, an endometritis with catarrhal discharge, clitoris *double the normal size*; urinary analysis revealed albumen and casts, specific gravity 1010 (24 hour specimen). The mental symptoms at this and subsequent examinations were hysteria, melancholia, insomnia, psychic blindness, syncope, nymphomania, etc. My diagnosis and treatment at the time (several years ago), were both purely symptomatic, but today I would diagnose this case as one of simple "abnormal internal secretions, complicated with nephritis and lacerated cervix." First week's treatment consisted of absolute quiet in bed under special trained nurse and nervines with special diet; second week, operation for lacerated cervix and curettement of uterus under local and H. M. C. anesthesia; latter part of third, fourth and fifth weeks, administered the dry-hot-air treatment (Sprague

method), with massage, and a strict select cereal and milk diet. At the end of the seventh week, the patient was dismissed as partially cured. My last account of this patient was that she was doing light housekeeping and other ordinary household duties, and had made a reconciliation with her husband and former friends.

This is only one of many similar cases that the general practitioner meets and puzzles his brain over, and then wonders why we know so little when there is so much yet to learn.

Would that our physiologists and anatomists, our chemists and co-laboratory workers would delve a little deeper into their respective sciences and bring to surface the respective functions and anatomical relations of these ductless and other internal secreting glands, with their special bearing on metabolism and mental forces.

We have the pancreas and its allied co-worker, the liver, with their peculiar generating and secreting forces producing pathological conditions, such as glycosuria or diabetes mellitus, a disease about which, until within the past decade or so, we knew but little. And even at this late day we are guessing between abnormal internal secretions and faulty metabolism with regard to their respective relations to the islands of Langerhans as the real etiology of this well known disease. The fell symptom of acidosis, in the production of diabetic coma, points very conclusively to the fact that faulty metabolism plays a very important role in this disease.

We have conditions very similar to these in certain diseases of the kidney when the functions of that organ become impaired to such an extent as to cause uraemia with its long train of mental and physical symptoms.

When we consider the vast array of psychic symptoms and phenomena produced by faulty metabolism and deranged internal secretions, we become somewhat bewildered in differentiating these conditions from some of the ordinary forms of insanity. No doubt but many "a poor devil" has been sent to a lunatic asylum on account of some sudden outbreak of anger or other erratic act due to hypofunction of some one or more of the ductless glands, or possibly to deranged body metabolism.

Since we have discovered that there is direct communication between the sympathetic nervous system and the ductless glands, we can

the more readily understand why these organs, with their secretions, become influenced by mental emotion either of anger or distress. Many cases of melancholy, hypochondriasis, etc., may be caused by derangement of the internal secretions. We may also have mental perversions, a lack of control of the passions of onanism and anger. Our paranoiacs, with their cunning schemes, our alcoholic and drug fiends, our eccentric, so-called religious fanatics who are suddenly and without preparedness, called by a Higher Power to preach some strange emotional doctrine, dogma or cult,—these are only a few of the pathological effects of abnormal internal secretions on mental depravity.

We have the various kinds of faulty metabolism that give rise to the purin bodies, such as uric acid, xanthin, guanin, etc. We also have the toxins that are set free, and invade the entire system when these ductless and other internal secreting glands become impaired, causing every imaginable form of mental perversion, such as illusions, hallucinations, etc.

The cardinal feature of the pathogenesis of various forms of insanity is involved in this connection, since the foregoing data and illustrations clearly indicate that hypothyria and hypothyroidism may, by inhibiting the efficiency of the defensive functions of the ductless glands in general, entail a pathological toxemia capable of evoking mental disorders. Hypofunction of any of the ductless glands may give rise to toxemia by simply depriving the system of this regulating or harmonizing fluid whose function is to destroy the toxins. This is especially true of the parathyroids since we know that tetany is nothing short of a form of toxemia caused by hypofunction of these glands.

Then, as a result of the deficiency of the nucleins, the catabolic phase of metabolism is also impaired, and toxic wastes accumulating in the blood, including that which circulates in the brain cells, catatonic phenomena are invited. Chemical changes in the cortical cells of a degenerative type may ensue, causing auto-intoxication. After a study of the fundus of the eye in 109 consecutive cases of this character, H. L. Tyson and L. Pierce Clark deliberately state that the visual syndrome, as observed by them, was a distinct contribution to the theory that dementia precox is an au-

toxic disease, and that the poison is primarily vascular, which finally induces neuronie degeneration.

Concerning the genesis of the poison, these authors, with many others, conclude that the syndrone points conclusively to the fact, that this toxin is generated in the gastro-intestinal tract.

To antagonize the intoxication by any wrong method of treatment, the ductless glands, which take part in the defensive functions of the body, the thyroids, the parathyroids and the adrenals, become abnormally active in some instances, and incidentally excite the dystrophic brain cells, provoking the catatonic form of the disease (Sajous).

Dercum and Ellis, in a post-mortem study of eight patients suffering from dementia precox, all of whom had succumbed to tuberculosis, found that in seven the thyroid was underweight. The other seven organs showed colloid abnormalities, both quantitatively and qualitatively, and four showed retrograde changes in the acinal epithelial cells. The adrenals, on the other hand, showed a marked excess in weight.

It is a well known fact that sixty-five per cent. of all idiots, before the age of six years, are deprived of the thymus gland (Sajous). It is also a fact that this class is more susceptible to infectious diseases, and about the same percentage succumb to these infections. Many die of tuberculosis in the incipient stage. As previously intimated, when we have a suppression or stagnation of the secretions of any one or all of the ductless glands, we have a state of degeneracy of both mind and body. We may have amentia, ranging from the slight backwardness of the moron or imbecile to profound idiocy, including amaurotic, moral and microcephalic forms.

Hebephrenic phenomena of melancholic type, incident upon puberty, is quite noticeable among school girls, who rarely pass the intermediate grade of the public high school.

It is not within the scope of this paper to discuss fully the hyper-function of the glands of internal secretion. When, however, in the presence of toxemia, we have clear evidence of over-activity of these organs, it is reasonable to conclude that we are dealing with a defensive reaction. If, after a trial of the desiccated thyroids and iodothyrim, we observe an increase of the motor symptoms of catatonia,

and those peculiar to Graves' disease, such as rapid pulse, muscular tremors, hyperhidrosis, the over-active eye reflexes, the increased muscular excitability, the demographia symptom, the loss of weight and skin pigmentation, we may reasonably conclude our diagnosis. The only clear indication, in our judgment, is a partial thyroidectomy, which has proven quite successful of late. Dr. Fallis, of ———, treated by this method eight successive cases of "catatonia" that recovered their mental integrity. This treatment applies more particularly to the young rather than the old and long standing cases. In mild cases of dementia precox, we might administer a thorough course of thymus extract aided by lecithin, which is a phosphorus compound, and is indicated in the treatment of the active nervous symptoms of both catatonia and Graves' disease. Dr. Bayard Holmes adds emphasis to the importance of this subject when he wrote: "There is no disease, not even general paresis, that finds the profession in so helpless, hopeless and pitiable a condition as dementia precox does." There is no disease that costs the State a larger amount in care and custody than this disease. According to various estimates, it represents about twenty-five per cent. of the total admissions to the institutions of the insane (Ingham).

In view of these established facts, sanctioned by such men as Sajous, Dercum, Hochwart, Howell and L. F. Barker, from whose able pens I have learned much and quoted liberally in the preparation of this paper, let us, as progressive medical men and humanitarians, give the subject of internal secretions more zealous study, and use our influence toward the establishment of institutions for the study and treatment of psychiatry and its relation to internal secretions and metabolism. By this lofty endeavor we may relieve the profession of the stigma of permitting thirty per cent. of our fellow mortals, who are doomed, die in the asylum for the insane.

"More might be said hereof to make a proof
Yet more to say were more than is enough."

DISCUSSION.

Dr. J. D. Rogers, Washington, D. C.—Mr. President, one point I might bring out is, when a woman is brought in for mental examination, the examination should be put off until she is a few days past her menstruation, if she is menstruating at the time she is brought in, because things will be found very different in a few days.

Dr. J. M. Lañá. Washington, D. C.—Mr. President, I have listened to this subject with much interest, as I am especially interested in nervous diseases. I was also interested in the point made by Dr. Rogers about examination during the periods when these women are brought in,—about deferring the examination for several days. If you examine them one day, then again several days later, you will find different things.

Dr. W. C. Powell, Petersburg.—This has been an interesting paper. Some ten or fifteen years ago surgeons removed ovaries indiscriminately. Now, it seems the pendulum is swinging the other way. I recall a case ten years ago; a married woman had some nervous condition and suffered a great deal during the menstrual period, was very tender over the ovaries, and I sent her to a hospital. She was operated on and the ovaries removed. She was better for awhile, but today she is back home on a furlough from an insane asylum. I believe if her ovaries had not been removed it would have been better for her. If I had that case to go over again I would see that they were not removed. The pendulum seems to be swinging the other way.

Dr. B. C. Kesiter.—The last gentleman mentioned about not having the ovaries entirely removed. It is now considered that they should not be entirely removed. We have cases on record where they were entirely removed and part of the ovaries of another patient inserted into the uterus and the woman has gone on to functioning regularly, having regular menstrual periods at regular times, after having had both removed and the ovary of another woman taken out and it is going on doing work.

I had a case not long ago of gonorrheal endocarditis. This man knew he had laid himself liable for things and was worried. I could not find any special indications of gonorrhea; it was almost gone, but he was worrying so that his heart became functionally deranged and he imagined he was going to die, and he wanted to get married. I worked with him awhile, gave him electricity about a month and other things and treated his mental condition in various ways. Finally, I decided to try him on desiccated thyroids and in less than 6 days that fellow's heart began to function normally, and today that man is well, just through the desiccated thyroids I believe we have many cases we could benefit by giving thyroids and other glandular substances.

The subject is one that should enlist the attention and careful consideration of every medical man in our Society, especially our neurologists and alienists. So many of our fellow beings are today spending their lives in hospitals for the insane and in the State penitentiaries, a large per cent. of whom are there from some form of derangement of the internal secretions. Many of these unfortunates, no doubt, had they received the proper treatment, might have been restored to their normal state.

With all due respect to our alienists who had charge of the celebrated case of Harry K. Thaw, I am strongly inclined to the belief that this was a case of paranoia complicated with derangement of the internal secretions, that possibly started in his early youth and increased gradually up to the time of his many rash and unlawful acts.

The Rev. Kelly, of Des Moines, Iowa, claimed that he was directed by God to slay one man and six ladies, all of whom he murdered in cold blood during the night, and returned to his private study and resumed his work of preparing his sermon for Sunday service. He kept this crime secret for four long years, and, while preparing another sermon along

the same line, and remembering the commandment, "Thou shalt not kill," he made up his mind to confess his secret crime to a sheriff. He was sent to jail and was tried in court, but was dismissed through the mercies of the court and the pleadings of friends, and is today, from last accounts, still preaching the gospel.

Should we not have a few expert alienists in every State in the Union to testify in court and throw more light on the subject of internal secretions as a factor in mental perversions? Let our neurologists see the importance of taking this matter up and thus saving many of our fellow beings from the prison cells and hospital asylums.

HEMORRHAGE AFTER GASTRO-ENTEROSTOMY.*

By THOMAS E. NEILL, M. D., Washington, D. C.

I am indebted to Dr. Mitchell for the data on the following case:

Patient was operated on at Emergency Hospital under ether about mid-day, October 18, 1917. A right rectus incision was made, the appendix removed and an ulcer about 2 cm. in diameter found on the anterior surface of the duodenum about an inch from the pylorus. The ulcer was turned in by several super-imposed mattress sutures, which also obliterated the pylorus. A posterior no-loop gastro-enterostomy was then done. The operation was completed about half past twelve.

The patient recovered well from the operation, was in good condition throughout the afternoon and had no nausea or vomiting. About 7 o'clock that night he suddenly complained of nausea and vomited 16 or more ounces of bright red blood. He was seen shortly after this and showed no particular effects. His pulse was about 100 and of good quality. At 9 o'clock he vomited 16 ounces more of bright red blood, and again at 10 o'clock another 16 ounces. His pulse was still good and he showed no particular effects although he looked a little pale. He was given 20c.c. of horse serum in the left thigh. At 11:30 he again vomited about 16 ounces of blood and his pulse showed some weakness and he looked a little shocked. It was then decided to open the stomach and attempt to find the bleeding point and preparations were made for this procedure. Two of his friends were brought to the hospital for the purpose of transfusion. The patient then seemed to improve a little and it was decided to keep the

*Read before the Medical and Surgical Society of the District of Columbia, December, 1917.

operating room and staff in readiness and watch him carefully. At two o'clock in the morning his pulse had improved and the donors were sent home and the operating staff dismissed, although the room was kept in readiness. A few minutes later he again vomited blood, but it was smaller in amount, darker in color and consisted chiefly of clots. It looked at this time as if the horse serum were exerting its influence and it was decided to wait and watch him further as his condition was not alarming. At 8:30 the next morning there had been no further bleeding and his pulse had improved markedly. The patient went on to an uneventful recovery with no further nausea, vomiting, or bleeding.

This case gave me a great interest in hemorrhage after gastro-enterostomy. On looking up the subject I was very much surprised at the small amount of literature on it, for, while it can not be called a frequent complication, it undoubtedly does occur often enough to be of great practical importance.

It is absolutely impossible to determine how frequently hemorrhage occurs after gastro-enterostomy, as no statistics could be found bearing on this subject; but practically every author writing on gastro-enterostomy mentions hemorrhage as one of the most frequent post-operative complications. A few cases have occurred at the Mayo Clinic.

Hemorrhage after gastro-enterostomy may be from the ulcer or ulcers for which the operation was performed, or may come from the line of anastomosis. Moynihan states that, unless the bleeding is demonstrably from the ulcer, he is disposed to think it more likely that the hemorrhage had occurred from the incision in the stomach wall. John Douglas, writing in Johnson's Operative Therapeutics states that most frequently the bleeding comes from the line of anastomosis. Dr. William J. Mayo (Collected Papers by the Staff of St. Mary's Hospital, Mayo Clinic, 1911) states that in a few cases in his early experience he supposed that the bleeding came from the ulcer and was due to operative manipulation until he was obliged to reopen the abdominal incision in two cases for the purpose of checking the hemorrhage within 18 hours after operation. He brought the stomach up and opened its anterior wall by a longitudinal incision, exposing the ulcer, which was found

dry in both cases, the hemorrhage coming from the posterior suture line of the gastro-jejunosomy. R. C. Coffey reported a case in which death was due to a hemorrhage from a wound in the stomach inflicted by the clamps. It should also be borne in mind that bleeding after gastro-enterostomy may be due to some condition in no way connected with the operation, as congested portal circulation.

Hemorrhage after gastro-enterostomy appears as a hematemesis or melana some hours after operation, as the blood accumulates in the gastro-intestinal tract. It may be trivial or may be so copious as to cause death. In the very great majority of cases it is slight in quantity, a few mouthfuls of a black fluid being vomited within one hour of the operation. In other cases it is more abundant, a pint of chocolate colored fluid being vomited. In yet other cases the bleeding may be abundant and continuous. Binnie (Regional Surgery, Vol. II) states that hemorrhage after gastro-enterostomy has been the cause of many deaths. Kraft (*Archiv. f. Chirurgie*, Vol. 93, page 557) reports eleven deaths occurring from this cause. Moynihan (Abdominal Operations) states there have been recorded at least three deaths from hemorrhage within a few hours after performing a gastro-enterostomy in which the blood has been shown to have come from the incisions in the viscera, and in other cases an open vessel has been found in the base of the ulcer or there was evidence that in the handling of the stomach during the operation such damage had been done as to set up hemorrhage.

The causes of hemorrhage after gastro-enterostomy are rough handling of the stomach, improper suturing, and improper use of clamps. Prevention, therefore, rests upon gentleness in handling the stomach, proper suturing, and proper use of the clamps. The use of clamps has been abandoned in many clinics, as it is believed that after their removal bleeding might occur from some points which had been missed by the suture taken through all the coats.

Moynihan states that prevention rests upon proper suturing, proper use of clamps, and careful inspection of the inner suture line after removal of the clamps. Unless the bleeding points are ligated separately, the suture must be so placed as to control bleed-

ing. This is best done by using a continuous suture which goes through all coats. After the inner suture is completed and the clamps removed, a sponge wrung out of hot sterile salt solution should be wiped gently over the stomach and intestines. This delay gives time for any improperly controlled vessel to bleed. If a bleeding point appears, a separate stitch should be passed through all coats of both viscera and tied. Some surgeons, Sinclair White and others, have deprecated the use of clamps. If they are used their pressure should never be so strong as to inflict injury on the mucosa, and in applying the inner suture each turn of the thread should be placed close to those already inserted and drawn sufficiently tight to control any bleeding point.

W. J. Mayo (Collected Papers by the Staff of St. Mary's Hospital, Mayo Clinic, 1911) states that in order to prevent hemorrhage from the suture line he began using a third row of catgut sutures uniting the mucous membranes along the posterior suture line. The accident is not so likely to happen on the anterior line, and since applying this mucomucous stitch to the posterior line there has been no bleeding following gastro-jejunostomy in any of their cases.

The treatment of hemorrhage following gastro-enterostomy may be surgical intervention or along general lines. As gastric and duodenal hemorrhage cease spontaneously in 90 to 96 per cent. of cases (Brinton), and as the mortality which attends operations undertaken for the relief of acute gastric hemorrhage ranges from 25 per cent. (Moynihan) to 64 per cent. (Robson), it is quite evident that hemorrhage following gastro-enterostomy should be treated along general lines in all but very exceptional cases. This consists in giving nothing by mouth, application of icebag over epigastrium, administration of morphine, injection of horse serum, and washing out the stomach with hot water, using a small tube. At the Mayo Clinic, water at 120 degrees is used for this purpose. If horse serum is not available, diphtheria antitoxin may be used, or a transfusion done.

The surgical treatment consists in reopening the abdominal wound, incising the anterior wall of the stomach, and finding and ligating the bleeding point. In some cases

it has been impossible to locate the bleeding point after incising the stomach—the whole line of anastomosis appeared to be oozing—and it was necessary to whip over the entire line of anastomosis.

1344 Nineteenth Street, N. W.

OBSTETRICAL PHYSIOLOGY AND DELIVERY.

By FRED'K M. HORSLEY, M. D., Lovington, Va.

Generally our statistics are gathered from hospitals and most of our medical literature is written by men with a city or hospital experience, but many helpful observations by the country practitioner go unnoticed because they are not reported.

A country doctor with limited facilities and lack of such opportunities to study cases for instructive and reliable information, often hesitates to state what he learns from his experience, because he lacks in powers of expression, or feels a diffidence and hopelessness in trying to make his statements believed.

Though lacking the exact methods of laboratory findings and recording charts of a patients' condition, yet in rural practice quite frequently a practitioner has to stay many hours with a case that requires close observation and probably has to do, or personally supervises his nursing. This is a decided opportunity for observation and study of a case that partly compensates for the loss of time.

Believing it is the duty in the medical profession of a man to call the attention of other practitioners to helpful facts that come into his experience, I am going to record some conclusions drawn from my own experience. Though respecting the opinions and teachings of leaders in thought along obstetrical lines, yet my limited experience leads me to differ from some of their statements. Edgar expresses the generally accepted belief in speaking of the last stage of delivery by saying, "It is generally admitted that the lateral position is most favorable to perineal preservation. In this position the force of violent pains is diminished, since the expulsive power here is actually a resultant of two divergent forces. In the lateral and latero-prone positions, the intra-abdominal pressure is also weakened, and the perineum is always under ocular control. Further, dis-

infection may be carried out more completely in the lateral decubitus. In the dorsal position the weight of the head carries the latter away from the pubic arch and against the perineum; this condition is not favorable to the latter. While this disadvantage may be offset by the upward pressure of the anterior segment of the perineum toward the symphysis, the former thereby becomes ischemic, thin and more prone to rupture."

In studying 100 cases of labor of my own, covering a period of several years—though that is limited material, yet a sufficient basis upon which to draw some conclusions—I believe the average case of confinement is better delivered in the dorsal position and that the head of the child when protruding should be strongly pressed upward toward the symphysis to save the perineum. This may be done by placing the thumb on one side and the fingers on the other of the perineum covering the head as it begins to open the vulva about $2\frac{1}{2}$ in. A very important thought to bear in mind, is to allow sufficient time for the tissues to stretch. If need be, the presenting part should be held back until gradual dilatation has made it safe for the child to be delivered. Obstetrics requires patience and judgment when not to act, and to know at what time to interfere, if needed.

By the prone position, better use can be made of the expelling muscles and utilization of the intra-abdominal forces to carry on labor to a quicker and safer conclusion; because the perineum is more quickly dilated in this position, the head can be kept by pressure from flexing too soon at expulsion and thereby preventing a greater diameter exit through the outlet of the vagina, than need be at first, and by forward and upward pressure of the head relieve the perineum and direct the forces of expulsion in the right direction.

It is the laceration of the pelvic floor that most often occurs in labor and by such manipulations the strain is lessened upon that area and laceration thereby lessened; also by controlling too early flexion at the expulsion other lacerations at the vaginal outlet are fewer.

Laceration of the pelvic floor is readily caused because the downward intra-abdominal pressure forces the child down upon the peri-

neum and the counter pressure of the part by its resistance causes the outward ejection of the fetus; therefore pressure of the head upward at expulsion serves three purposes, first it assists the abdominal and uterine expelling forces; second, aids and protects the perineum in its effort; third, prevents too early flexion of the head, thereby causing a larger diameter at the exit of the head than need be. DeLee in "Obstetrics" of the "Practical Medicine Series" for 1917 quotes from Cadwallader as follows:

"The mechanism of delivering the head is the important factor in the prevention of lacerations."

The author believes that there is a lateral implantation of the sphincter vaginae into the superficial transversus perinei muscle, and not into the central point of the perineum.

The pelvic outlet may be likened to two triangles, base to base. The anterior has its apex at the symphysis and its base along an imaginary line joining the ischial tuberosities. The posterior triangle has its apex at the coccyx. These are not in the same plane, but are inclined to each other, and with the same angle that is made by the front and back planes of the fetal skull to a line joining its parietal eminences.

When the head begins to bulge the perineum, the result is downward as well as an outward movement of the central point. Therefore, efforts to dilate the perineum by hand will only result in later lacerations, as it displaces the central point downward only. Normally, the head forces the perineum outward and downward until the neck impinges under the symphysis. When this has occurred, the sphincter vaginae and perineal muscles are well stretched and the head will begin to extend, and in so doing separate the sphincter vaginae. Again, the downward and outward movement of this central point has, as it were, made the sphincter vaginae the long side of a triangle. If the anteroposterior diameter were conceived as made up by the sphincter ani and sphincter vaginae in a line, the point of union is now out and below where it was and a triangle is formed.

To prevent a laceration, we have only to keep the head from extending too soon. If this is not done, the central point is not pushed far enough downward and outward, i. e.,

the sphincter vaginae is not stretched sufficiently, and the head begins to separate the muscles before its length is equal to the circumference of the head. As it extends, it does this more and more until there begins to be a direct pull on the point of attachment or union with the transversus perinei. Before it can pass, the tension of both sphincter vaginae and transversus perinei are pulling opposite to each other and the line of cleavage is between this union and the central point. When this has parted, it divides by laceration a few strands of the levator ani, and then follows between two bundles of the latter muscle widely outward and downward.

The rule for delivery, therefore, is to keep the hands off the perineum, and never let the head extend too soon. Since observing this simple rule Cadwallader states that perineal lacerations have become very infrequent in his practice. I thoroughly agree with the author except that the head can be kept from extending far better by pressing it upward and forward than by keeping the hands off the perineum, as this prevents extension of the head.

It may be in this my practice is wrong, that I do not hesitate to make vaginal examinations when they seem needed: for I reason that otherwise it is difficult to watch intelligently the course of labor.

Perhaps, the causes of infections are less prevalent in the country than in cities, but with only the precaution of sterile hands, I have had no infection in these cases, except one in which I made no examination.

Going back to the expulsion of the fetus, there often arises some obstruction to its passage that may be relieved by proper manipulations with the hands. Engagement sometimes will not take place though the os be thoroughly dilated. At this juncture the rupture of the bag of waters will often be the remedy needed, as the head will then sink down in the pelvis. There may be a little too much extension of the head that counter pressure upon the brow may help. Some variation in size or shape of the head, or of the pelvic formation from normal may cause the head to bind at certain points in the pelvic canal. Results from these conditions may be that the strength of the mother is wasted by a long series of fruitless efforts to dis-

lodge the head from such places and probably contusion at such points of the parturient canal results, with greater liability to infection; when not infrequently strong pressure with the fingers away from such obstruction when the pains are on, gives good results.

Force applied to a weight may not move it, but energy exerted in a plane parallel to this force may cause the object to move. A rock loosened and sticking to a mountain side because the force of gravity is not quite sufficient to bring it away, can be moved from its base by rocking it to and fro and caused to roll away; so, a strong push of the head with the fingers from some spot in the parturient canal where the head has lodged, notwithstanding strong bearing down efforts, may bring the fetus away. Of these 100 deliveries named, including five forceps deliveries—three being primiparae,—there has been only one laceration that required repair and one case of infection.

Is infection so frequent in puerperal cases that are left as nearly as possible without trauma?

This infected case happened to be one that I did not examine and the peritonitis that developed several days later may have arisen from some previous abdominal condition and labor have been the exciting cause. There were no mortalities of the mothers: two still births; two of the children died from manipulations and prolonged birth in a case of version for delivery of a cross birth and a breech birth; the fifth died in a breech delivery before I could reach the mother to assist her.

There will be many that will not agree with what I have stated, but whatever adverse criticism there may be to what I have had to say about infection, one that is unbiased must admit that lacerations in labor can be greatly diminished by the proper study of physiology regarding obstetrical forces, and by working in accord with nature.

WHAT IS CONDURANGO?

By J. N. UPSHUR, M. D., Richmond, Va.

Condurango came to the front some years ago as a much vaunted remedy in the treat-

*Read before the Richmond Academy of Medicine and Surgery, March 19, 1918.

ment of cancer of the stomach; of course, such a claim was absurd and it was laid aside and practically forgotten. About twenty years ago fluid extract of condurango was prescribed by a stomach specialist for the writer. In reply to the question, "What is condurango?" he replied, "I do not know",—a commentary on the therapeutics of many specialists of the present day. A search of the literature gave little satisfaction, only one author mentioning it at all, and he described it as an "astringent bitter". Clinical observation, however, convinced the writer that it was much more, and that it possessed valuable properties. In addition to careful clinical observation, the writer sought information from large manufacturing chemists, with the object of location and separation of an active principle, and the more clearly to define the physiological properties of the drug. A letter from John Wyeth and Brother, of Philadelphia said: "We beg to advise that this is rather an old drug; it has not been used for a good many years, and the literature seems very scant, we presume because its use is on the decline. We find in the U. S. Dispensatory, 18th Edit., the following reference to its constituents. 'Dr. Thomas Antisell (A. J. P., xliii. 289) found in it tannin extractive matter, and a yellow resin, to which he attributes whatever virtue the plant contains. Dr. Vulpius (P. J. Tr., 1066) has found in it condurangin, a substance very closely allied to vincetoxin of Tanret, and, like it, converted by warming when in concentrated solution into a tolerably stiff jelly. For Barthe's method of isolating it, see (A. J. P., 1892, 640.) Carrara (A. J. P., 1892) obtained from the so-called condurangin of commerce two principles: one insoluble in water, soluble in benzene, a light, almost white powder, melting at from 60—61 C., and of the composition $C_{20}H_{32}O_6$, the other soluble in water, of a yellowish color, melting at 134 C., and of formula $C_{18}H_{28}O_7$. Both compounds are decomposed by acids, yielding a brown pitchy substance, insoluble in water. Condurango blanco seems to have little, or no physiological action. Gianuzzi and Bufalini affirm, indeed, that it is a convulsant like strychnine, but Dr. Lauder Brunton has shown (*Journal of Physiology*, vol. v.) that it has no action on frogs or

rabbits unless the unfiltered solution be injected into the jugular vein, and it would seem probable that the convulsions seen by the Italian observers were the result of cerebral embolisms. Nevertheless, Prof. Kobert found condurangin to be a violent poison, causing convulsions, followed by paralysis; he believes it to be a mixture of several principles (Schmidt's Jahrb., 1889, No. 9). Dr. H. Chiriboga states that two or three drachms of it taken by himself in the form of decoction produced considerable activity of the circulation, copious diaphoresis, increased secretion of urine, and even some vertigo and disturbance of vision."

Potter, in his 11th Edition of *Materia Medica, Therapeutics, and Pharmacy* contains the following reference: "Condurango (unofficial) is the bark of *Gonolobus Condurango*, nat. ord. *Asclepiadaceae*, a native of Columbia and Ecuador. A fluid extract is on the market, the dose of which is 20 drops to one drachm or more. Condurango is an **astringent bitter**, also a stomachic tonic and sedative. In South America it is employed as an alterative remedy in syphilis, and at one time it was supposed to be curative in gastric ulcer, in which its only value is as a sedative to the gastric mucous membrane, relieving the vomiting, pain and bleeding. It is efficiently used for catarrh and hyperæsthesia of the stomach. Its active principles are two glucosides, which in dogs cause ataxia and incoordination, increased motor activity, and finally convulsions, death occurring after 12 to 72 hours."

It has been prescribed by the writer in cases of gastric atony, deficient motility and consequent fermentation with distention of the viscus by gas. It has been found most efficient in the relief of this condition, promoting appetite, and making digestion more complete. It has been given usually in doses of 30 to 40 drops. Clinical observation has revealed the fact that there is a varying susceptibility to its action, manifested by ringing in the ears and vertigo, patient being often alarmed by the development of these symptoms. In one instance when taken by the writer, symptoms resembling those of strychnine developed, lasting for three days, until the drug was discontinued. There was agonizing pain extending the whole length of

the spine and in a less degree from the hips to the knees. Observation of this drug for eighteen years in many cases of gastric disorder has convinced the writer of its value in the therapy of the various disorders of the stomach characterized by gas, pain, and atony of the viscus. Especially is it valuable in those cases in which there has been a nervous let down from various causes, the result of which is deficient nervous stimulation of the gastric muscle, and consequent deficient gastric peristalsis.

1103 W. Franklin Street.

DUTIES OF SOCIETY MEMBERS.

By THOMAS W. MURRELL, M. D., Richmond, Va.
President Richmond Academy of Medicine and Surgery.

It would be most obvious camouflage if I pretended not to be flattered in being the presiding officer of this Association, yet it would be the vision of a fool to regard it other than a call to service.

The year 1918 bids fair to be the turning point in our affairs, and it is stating the case mildly to say that the situation is critical.

Many things contribute to the warnings of the storm and it would be well to consider our dangers and thereby take measures to overcome them.

Any and all measures are only justified if our cause be worthy and the cause now is the perpetuation in full working force of the Richmond Academy of Medicine and Surgery.

The most pressing danger is the resolution introduced at the last meeting considering a change of meeting place. The Academy met for years at Third and Main, and then came to this hall with one year intervening. That year nearly wrecked the body. It had as its president an enthusiastic, capable officer, Dr. J. Shelton Horsley, who worked in season and out for the good of the Society, but the meetings were held in four different buildings and in five different rooms. No leadership could withstand this, for attending society and lodge meetings is a habit peculiarly hard to re-establish, even though beneficial. For this reason, every effort must be made to hold this place. What we cannot afford to pay for may be given us if our need is because of sacrifice for

the country's good, and this is the fact of the case.

Nearly sixty men have enlisted in the Medical Reserve Corps. Their dues being remitted, we are deprived of an income of \$240 per annum. Since we adjourn for the summer, we only pay for eighteen meetings, and we are therefore deprived of an income one-third more than we pay in rent.

These sixty men have taken away from us more than money, however; in that their brains and presence are denied us. We must do without the suavity of Peple, the lovable truculence of Nelson, the good-nature of Baughman, and that scientific spirit which pervaded them and especially marked those younger men, Porter, Smith, Geisinger, and others.

These men not only attended but they contributed scientific articles and discussed the papers of the evening. These men are simply invaluable and we must do without them. We must do because we have worked too long and hard to build up this Society and, further, we must preserve for them their professional home against the day of their returning.

Another danger to this Society has been the recent growth of magazine clubs. This danger is more apparent than real, for while men may get more out of less formal discussions, no small group can ever take the place of the larger and more democratic organization. Let us, then, have ideals for this Society and by transmuting them into ideas, work out our salvation. If this be our organization, let us assume the attitude of one and make its force felt in the community. Do you realize the absurdity in the fact that we constitute the most potential body in the city? Do you not know that we should always do what we want and have what we want if we only realized our strength? Yet, when great affairs are in the making, the Chamber of Commerce, the Business Men's Club, the Rotary Club, and the ministerial associations are consulted, while we repose on our dignity with the solemnity of the Egyptian spirit and are consulted about as much.

In the Red Cross parade a prominent banker asked that a few of the prominent physicians march with them. Mind you, a banker asked us to help him in a Red Cross celebration. Why, we should have led that pageant for suffering humanity. It was our privilege and right.

*Address of the President, before the Richmond Academy of Medicine and Surgery, January 8, 1918.

Again, who thought of us when the Liberty Loan was organized? Were doctors called on to speak? Ministers were, lawyers were; but we, like the building of the Medical College of Virginia, might have as well been in Egypt.

We can't stand this sort of thing, and it must be overcome. To neglect our scientific side would be to sacrifice what we have attained, and must not be thought of, but we are neglecting our opportunities woefully and senselessly as citizens.

This is the work mainly of the Ways and Means Committee and I hope that a report from this committee will become as much a matter of interest as our scientific discussion.

The programme this year must of necessity be largely made up of visiting essayists. We have not the material left to keep up the standard set in past years. We usually gain in knowledge when we have many visitors, though we become less self-reliant. This last will have to be acquired this year, but by so doing we believe a high standard of papers will be obtained.

I would recommend that two special committees be appointed this year for two separate tasks: One I would call the Communication Committee. We should keep in touch with our members at the front and in the camps. We should have letters from them and they in turn should have copies of our minutes and magazines forwarded, in which the special articles are published. They should never be allowed to feel that we have let them go or are losing interest in them. They are ours and we who for one reason or another are forced to keep the home fires burning, need not wait in our interest and attention until the boys come home.

The second committee is the Membership Committee. We must have a membership campaign. I have gone over our rolls and a dozen good men have been dropped for non-payment of dues. I believe that, properly handled, these men could be brought back into the fold, and there are others who have never joined. This committee, however, would have the larger task of getting men to attend who regularly pay their dues and get no return therefrom. I have a neighbor whom I venture to say has not attended the Academy ten times in five years. To pay an admittance fee of two dollars per meeting, which is virtually what he is doing, shows we must have a good entertain-

ment or that he is a poor investor. Yet, there are many like him. The stirring into activity of such men will more than atone for our losses to the army. I ask your leave to appoint such committees, and, as ex-officio member, I will strive to see that they make good.

It has been a matter of humorous comment how high hopes and enthusiastic plans, so prevalent with each new president, soon wither and die when battered to pieces against the apathy which has almost become a custom. In other days, this would only be a minor pity; since it is a pity that enthusiasm for common good should even go to waste. But apathy now means disaster, and adherence to old ideas and customs may well mean morbidity. If this Academy ever means to fulfill its mission, it must now rise up and try its strength.

17 East Grace Street.

ANTERIOR POLIOMYELITIS—SHALL WE PERMIT THIS TO RESULT IN INFANTILE PARALYSIS?

By F. C. TICE, M. D., Roanoke, Va.

To the learned members of our profession there is a well defined group of symptoms, a group common to no other disease, significantly diagnostic of anterior poliomyelitis. Despite this, an inscrutable conservatism decrees that we suspend definite deduction pending development of the case, said development being the onset of paralysis, at which point we may be positive and announce with no fear of contradiction that which any erudite layman may at once recognize.

Scientific accuracy is thus drawn to an attenuated point, with most serious consequences to the helpless patient. Better, far better, the use of prompt remedial measures in the incipency of the attack, with the patient speedily restored to health and full vigor, permitting complacently a question of diagnosis on the part of the less expert.

The weight of evidence as to the infectiousness of this disease seems to greatly preponderate the negative view. Nothing in the history of sporadic cases, and nothing convincing in the recent epidemics justifies the drastic measures taken by our health boards as regards quarantine. In fact, the atmospheric origin and spread alone will account for the majority of cases. The severe measures adopted and restrictions enforced are of questionable expediency or wisdom.

The results of treatment in segregation hospitals have not fulfilled either the expectancy of the public nor the hope of the medical attendants, notwithstanding the watchful care and studious attention of the latter.

The prognosis remains favorable as to life itself, indefinite and unsatisfactory as to the degree or ultimate history of the ensuing paralysis.

Our profession is so ultra-conservative that it is not inclined to consider any method of treatment aside from the beaten path of drugs and surgery, other than to turn an expectant, hopeful eye to the field comprising antitoxins, vaccines and serums.

We have, in the properly directed and combined use of the X-ray, radiant light and heat, properly selected forms of the high frequency current and a few simple drugs, a method which exceeds in usefulness to humanity all that has heretofore been discovered.

Denial, scoffing, ridicule, carry neither weight nor argument. The true scientist, the earnest physician, the broad-minded man is always ready to investigate, ever open to conviction.

Therefore, the writer here and now challenges anyone to produce a case of anterior poliomyelitis in the pre-paralytic stage, or a case of cerebro-spinal meningitis within the first twenty-four hours of its onset, that may not be relieved, checked, aborted and cured within from five to seven days under intelligently directed treatment embodied in the combined use of the measures noted, comprehended under the general term electro-therapeutics.

If the claim embraced in this challenge is founded on scientific facts, as is true, with corroborative clinical experience, likewise true, and capable of convincing demonstration, is it not unjust to the victim of either disease noted to ignore it?

Given the opportunity, can any physician, knowing that such a claim has been made—and ignored—gaze complacently upon the little cripple evolved despite his care, or calmly affix his signature to the final demit of the victim to spotted fever?

709 South Jefferson Street.

The U. S. Department of Agriculture, Bureau of Biological Survey, Washington, D. C., upon application, will furnish information on practical methods of destroying rats.

Clinical Reports.

OBTURATOR HERNIA—CASE REPORT.*

By B. W. RAWLES, M. D., Richmond, Va.

The case which I have selected to report tonight is obturator hernia, but before entering into the details of the case, I wish to say that I am going to depart from the usual custom of reporting cases that recover. My case died, but when you consider the great mortality of obturator hernia, you will not be surprised.

Most of the authorities on this subject have written very little and some of them nothing. Berger had one case in a series of 10,000 cases of hernia, and up to the present time there have been reported only about 200 cases. The mortality ranges from 50 per cent. to 85 per cent., and it is a condition which is seen more frequently in elderly females; is slow in formation, and the symptoms are less marked than other forms of intestinal obstruction; a diagnosis is rarely ever made until gangrene has occurred and the abdomen opened.

Case—Mrs. M. T., white, age 83 years; a widow; family history excellent.

Personal History.—Mother of four children. She had phlebitis following birth of second child and small-pox during the Civil War. Twenty years later, she had fainting spells about twice a month for two years; after this, complained of palpation of the heart. She suffered with obstinate attacks of constipation for several years prior to present illness.

Present Illness.—She was taken sick about 5:30 P. M., October 12, 1915, with pain in lower abdomen and nausea; later on in the evening, she vomited. She was urged to have a doctor, but said she did not feel that she needed one.

I saw her first, on October 13, 1915, and she appeared to be a feeble, emaciated old lady, but not very sick. Physical examination of lungs negative. Heart very weak with intermittent beat. Kidneys acting normally. Abdomen tender below the umbilicus, but no distention and no mass could be made out. She was suffering with pain in lower abdomen which was intermittent and colicky in character, with nausea, but no vomiting. The pain was not severe enough to require an opiate. Pulse 90 and intermittent. Temperature nor-

*Read before the Richmond Academy of Medicine and Surgery, November, 23, 1917.

mal. From her description of previous attacks of constipation, I decided that I had a similar condition to deal with and forthwith ordered S. S. enema to be given at once and three grains of calomel to be given in one-half grain doses every half hour, until all had been given: this was to be followed four hours later with two drachms of Fleet's phosphosoda every three hours until bowels moved well. I saw her again on the morning of October 14th, and, in spite of the nausea, she had retained all of the medicine given her, and much to my surprise, her bowels had not moved and no gas had passed by the rectum. At this time, the symptoms which I have mentioned were somewhat more pronounced and there was slight distention of abdomen. I noticed a decided fecal odor to breath. This was an important point in aiding me in making out a case of obstruction. While I felt certain that I was up against a case of intestinal obstruction of some form, I did not feel that I had treated the case as heroically as the symptoms now seemed to demand.

A nurse was placed in charge and an ounce of castor oil was ordered to be given, also a high oil enema, which was followed by an S. S. enema. I saw patient four hours later and no results had been obtained. An alum enema was given with no results. At this time I was absolutely convinced that the case was one of intestinal obstruction and advised an operation. Those concerned were advised of the gravity of the case, but, in the face of the danger of anesthetic and shock of operation, both the patient and relatives readily agreed to take a chance.

Careful preparation for anesthetic and operation were made. One-half hour before the operation, one-sixth of a grain of morphine with 1/200 of a grain of scopolamin were given hypodermically, and at the hour of operation, the patient was sleeping soundly. The abdomen was prepared in the usual way with benzine and fifty per cent. tincture iodine. One per cent. solution of novocain was injected in the skin and subcutaneous tissue along the median line below the umbilicus. After a few minutes' wait, abdomen was opened down to the peritoneum without disturbing the patient. At this stage, ether was given cautiously and the peritoneum was now opened when a considerable amount of bloody serum escaped and, at the same time, a dark reddish distended gut

found its way into the wound. A hurried examination showed that the obstruction was somewhere in the pelvis. The distended gut was traced to the site of its incarceration, which was the obturator foramen, and released with some difficulty. It was brought into the wound for inspection and this showed a loop of the lower portion of the ileum with an oblong gangrenous area about one and one half inches in length, with axis of gut three-eighths of an inch wide. This area was turned in by Cushing's method of right-angled continuous suture with Pagenstecher celluloid thread.

Owing to the feebleness of the patient, no attempt was made to close the opening in the foramen. The abdomen was closed and patient put to bed. On the following morning, bowels moved and continued to move until eight movements were recorded at the end of the day. After this, they moved once or twice daily. Kidneys were acting satisfactorily. There was a slight rise in temperature which lasted three days. After this temperature continued normal.

She had a very weak heart, which required stimulants. The wound was examined on the eighth day and found to be healing kindly. Abdomen was soft with no distention. In the early morning of the ninth day, patient died from myocardial failure.

709 West Grace Street.

CANCER OF LIVER—CLINICAL REPORT*

By CARYL BURBANK, M. D., Washington, D. C.

Male, white, married, 45 years of age. Occupation, clerk.

Complaint.—Chills and fever, jaundice.

Family History.—Father of three children, all healthy and strong, eldest being 18 years of age. Wife has had no miscarriages.

Past History.—Had had the usual diseases of childhood with good recoveries. Always healthy and strong with exception of attack of malaria, yearly or every other year for the past 17 or 18 years. These attacks were cured by whiskey and quinine and he was accustomed after starting his treatment to continue the whiskey in considerable amounts for from 5 to 7 days and would be for that length of time away from his work on "a little spree." Did not drink between these times liquors of

*Read before the Medical and Surgical Society of the District of Columbia, November 1, 1917.

any sort, and never lost time from the office. There is no history of previous attacks of any abdominal colic or jaundice. Last attack of so-called malaria two years ago. No specific history nor of Neisser infection.

Present Condition.—Had been perfectly well and feeling fine until four weeks previous when he was taken suddenly ill with a severe shaking chill and high fever with vomiting. Took the usual prescription but the chills and fever with sweating did not abate. After eight or ten days began to have a chill every day, then sometimes twice a day, nausea became more prominent so that for the last two weeks albumin is the only thing retained in stomach. Fever ranged from 102, 103 to 104°, to normal or a little above. After about two weeks patient began to get a little yellow; for the past two weeks this has been increasing. There is no pain and patient says he has lost 30 to 40 pounds in the last five weeks.

Physical Examination.—Man of large, strong frame, shows evidence of considerable emaciation, and has a marked degree of jaundice.

Lungs and heart are negative.

Liver—absolute dullness to 4 inch rib in parasternal line, 6 inch rib in mid-axilla; liver extends a good three fingers below the ribs, smooth, fairly firm and uniformly enlarged. No pain on deep pressure. No splenic enlargement.

Umbilical hernia present with considerable extra tissue present so that it resembled caput medusae. There was no other venous distention and it was not considered a caput by me. No fluid in abdomen, no masses felt and no glands enlarged. No hemorrhoids or disease of the rectum discernible.

Urine.—Bile and few casts.

Blood.—Wassermann negative.—Reds. 3, 200,000; whites, 19,700; hemaglobin not taken.

Exploratory Operation.—Stomach apparently normal; small cancerous mass at head of pancreas, cancerous mass under the liver making pressure on common ducts. A few marble sized foci seen on surface of liver; liver surface smooth; gall bladder normal.

2147 F Street, N. W.

Practical Points in Current Medicine

Conducted by
PUBLICATION COMMITTEE,
Medical Society of Virginia.

General Surgery

Ectopic Pregnancy.

The typical case is easy of diagnosis. A patient who has previously been in excellent health, who has missed one or more periods, and who is taken without warning with a severe abdominal pain, accompanied by shock and followed by a bloody vaginal discharge, must have a ruptured ectopic pregnancy. However, cases of ectopic are not always typical and often present symptoms that confuse with other conditions; and, again, we are not always looking for ectopic and sometimes fail to diagnose on that account alone. The conditions that are most frequently mistaken for ectopic are gonorrhœal pyosalpinx and early abortion. In the first case we have a constant bloody flow, abdominal pain and masses on physical examination. In the second case we have a history of a missed period, abdominal pain and bloody flow. There are two points, however, that are practically always present in ectopic and are of distinct diagnostic value. One is the missing of one or more periods; the other is faint or faintness with the onset of abdominal pain. This is due to shock and will be found to be invariably present.

In reference to treatment, notwithstanding the fact that some cases of ectopic recover spontaneously, the general rule should be observed of operating on all cases. We cannot tell if subsequent hæmorrhage will take place or what their extent will be. It is a mistake, however, to operate on the severe cases during the period of primary shock. These patients should always be kept absolutely quiet with ice bag on the abdomen and given saline by the bowel, or if necessary a transfusion. Under this treatment reaction almost invariably occurs in a few hours and the patient can then be operated on safely. The greatest danger is the shock, and if this is increased by operation the patient will likely succumb.

CHARLES R. ROBINS.

Ophthalmology, Otiology, Rhinology and Laryngology

Foreign Body In Larynx Removed Under Suspension.

On January 5th, 1918, was brought to me a little boy D—, age four, referred by Dr. Newton De Shazo.

The history given by the father was that on the previous day the child had put a chicken wire-staple into his nose, which they had been unable to find on examination of the nose. This morning, at breakfast, he complained of slight pain in the throat and was now hoarse; otherwise had no symptoms, either of distress in breathing or difficulty in swallowing. This was a very tractable child, and submitted to all forms of examination in a way that is seldom seen in children of this age. Nasal examination with the nose well shrunk with adrenalin, revealed no trace of the foreign body, nor could it be found on examination of the naso-pharynx with the finger. Examining the larynx with laryngoscope showed a glimmering object between the vocal cords. The patient was sent immediately to the Memorial Hospital, and under suspension laryngoscopy a small staple, one inch in length, made of wire about one-twelfth of an inch in diameter, the prongs separated three-eighths of an inch, each prong sharply pointed, was extracted from the larynx. It was lying with the sharp-pointed ends forward; one prong above and one below the vocal cords. There was but little trauma produced by its removal, and but very little blood was seen.

The patient was put in a tent bed, and a croup kettle with compound tincture benzoin in the water was kept constantly boiling under the tent. Ice packs were used on the exterior of the larynx, and at the end of twenty-four hours, the child seemed perfectly well. The ice packs were discontinued, but benzoinated steam kept up for another twenty-four hours.

On January 8th, he was allowed to go home. His voice was clear, and had no symptoms of any laryngeal irritation.

The father was told to report to his physician if any trouble arose, but at the end of a month, had not done so; consequently, it is presumed that he remains perfectly well.

The value of the suspension laryngoscope was demonstrated in this case, enabling this foreign body to be extracted without consequent injury to the larynx, or the necessity of external operation for its removal.

CLIFTON M. MILLER.

Internal Medicine

Cardiac Disease—Hydrothorax—Dyspnea

The distressing symptom of shortness of the breath in cases of heart disease is very frequently caused by hydrops in the pleural sacs. Many patients, referred to or seen by me in consultation, have been quickly relieved of the dyspnea by aspiration of the dropsical fluid from the pleural cavity. Often this complication is over-looked by the physician. Not a few of these cases have been so harassed by difficult breathing that, in order to get sleep and to get relief from disorders of respiration, the morphine habit has been acquired through the routine use of this narcotic drug. These patients present a pathetic picture when, relieved of the hydrops by aspiration, the merciless signs of the "drug fiend" show out prominently in the mental and moral side of the patient. It is no small task to relieve these patients and to restore them to a proper mental condition. I would feel that the physician should resort to morphine in cases of decompensation of heart for relief of dyspnea only after he is quite sure that *hydrothorax does not exist*. Oedema of the lungs, showing itself in the form of cardiac asthma, so-called, is often relieved by a proper use of morphine in connection with cardiac tonics. This striking result, so often affording prompt and instantaneous comfort in a most alarming condition, is a reason, I fear, for its unwise use when shortness of breath is caused by hydrothorax, rather than pulmonary oedema. In this circumstance, repeated and increasing doses are required to relieve difficult breathing, yet without removing the condition, which it actually harms.

There are a number of causes for the collection of transudates in the pleural cavities. In cardiac, renal, and blood diseases, this complication most frequently shows itself, while in new growths of lungs, pleura, liver and abdomen it may be observed associated by its important symptom of difficult breathing. But it is only of heart disease that I am writing at this time. The diagnosis of hydrops by

physical examination is not unattended by difficulty. I think it much more difficult to elicit, in most cases, than in effusions secondary to pleural inflammation, for the reason that palpation, percussion and auscultation more frankly speak out flatness and impairment of tactile and vocal fremitus over areas of thickened pleural inflammation and the more viscous fluid resultant therefrom. Again pleural transudates are not encapsulated. Hydrops in pleural cavities in heart disease may be latent signs of difficult breathing only appearing on exertion. For such cases, one has to be on the watch constantly.

Anders says, in speaking of this condition, "my observation confirms the view that a serious collection of considerable magnitude in the right pleural sac may go unrecognized in the hands of a physician who is not fairly expert in the matter of physical examination." Osler's text-book calls attention to its unrecognized frequency in post-mortem examinations. It is undoubtedly far more frequent than is recognized, and it is a cause of great distress and danger to patients. The relation of the amount of fluid and the violence of the symptoms of dyspnea, cough, tachycardia, etc., vary very much. Only recently I aspirated the right pleural sac of a patient who came into my office exhibiting great dyspnea, constant dry cough and marked cyanosis. He was greatly relieved by the removal of 360 c.c. of transudate, while another patient upon whom many aspirations have been done within past three months can get along fairly well with much larger quantities. Many times, 1000 c.c. have been withdrawn from this patient's pleural sacs on succeeding days.

The right side presents the fluid more frequently than the left and in greater quantity. Small amounts in the left pleural sac disturb the patient very much.

In one myocardial patient, now under treatment, the pleural accumulation was accompanied by general anasarca, particularly prominent about the buttocks, back and chest, for some time interfering with the interpretation of physical signs. But the dyspnea, a highly nervous condition of the patient and insomnia led me to aspirate the right pleural sac. I withdrew about 1000 c.c., giving him great relief. This was in February, 1918. Since then, on an average of twice weekly, about 1000 c.c. of serous collection has been withdrawn from

each sac. Gallons have been taken from his pleural sacs. His general œdema has about disappeared; his dyspnea is relieved by each aspiration; his kidneys are improved, and his heart is functioning much better. This case is cited to impress the value of thoracentesis in myocardial hydrothorax. It relieves a distressing symptom—dyspnea. It affords relief to the heart and helps heart tonics restore tone to heart muscle.

ALEXANDER G. BROWN.

Obstetrics

Infant Mortality.

To reduce the rate of infant mortality should be a special study at the present time, when so many of the race are being slaughtered in the "over-seas" war.

Of the five per cent. of infants which die during labor or soon thereafter, a large percentage of deaths occur from asphyxia neonatorum; some of these are preventable.

In reviewing the subject, as well as by observation, we find that a large proportion of the asphyxias occur in primiparas, especially those over thirty years of age. The reason for this is not hard to state, when we think of the usually resistant soft tissues in those who have not had children, this condition retarding the second stage of labor, and in turn causing a prolonged compression of the head, or presenting part; if a breech, it does not dilate the canal sufficiently for a rapid delivery, when it becomes necessary.

In a splendid paper, by Dr. Charles B. Reed, on "Fetal Death During Labor," read before the Chicago Gynecological Society, and printed in the May number of *Surgery, Gynecology and Obstetrics*, he quotes Veit as reporting 2,550 vertex labors, and of those in which the second stage of labor lasted two hours, 18.32 per cent. of the infants were asphyxiated, 1.7 were still-born and 5.5 per cent. died later; among those in which the second stage lasted four hours, 49.65 were asphyxiated, 5.59 per cent. still-born and 6.22 per cent. died during the next few days.

Dr. Reed draws the usual distinction between the blue and the pallid asphyxias, the blue asphyxias being of a minor grade and therefore offering a much better chance of recovery. In the pallid asphyxias we have vagus paraly-

sis, the reflexes are lost and the muscle tone is gone.

The above brief reference to one point in the paper referred to, suggests that we look upon a slow, tedious labor, as more than a few more hours for the woman to be patient, that we view it as a definite danger to the unborn child, and it should be ended as soon as the child shows dangerous symptoms, threatening its life, provided that labor can be terminated without undue risk to the mother.

Frequent forceps deliveries are not recommended or advised, yet they are definitely indicated in some cases of prolonged second stage labor for the sake of the child; and where properly adjusted and used should not compress the head as much as if the head was allowed to remain packed in the bony pelvis.

VIRGINIUS HARRISON.

Public Health

Piedmont Sanatorium, the State institution for the treatment of colored consumptives, residents of Virginia, was recently opened and several patients admitted. There is room for a few more patients.

The Sanatorium is located in Nottoway County, adjoining the Southern and Norfolk & Western Railroads, one mile from Burkeville and three miles from Crewe.

The post, telegraph and express office is Burkeville, the junction of the Norfolk & Western and Southern Railroads.

The rates are \$2.00 per week, payable four weeks in advance. This fee covers board, lodging, medical and nursing attention.

Applications for admission, stating the condition of the patient, together with the existence of complications, should be sent direct to Dr. H. G. Carter, Superintendent, Piedmont Sanatorium, Burkeville, Va.

ENNION G. WILLIAMS.

Correspondence.

Letter From The War Zone.

Chief Surgeon's Office,
Headquarters 93rd Division,
American Expeditionary Force,
France, April 5, 1918.

To the Editor: I am enclosing two clippings, one in French, from the Paris edition of the *N. Y. Herald*, which you can have trans-

lated, and one from the Paris edition of the *London Mail*. I think you will find both of these will be worth publishing, and will be of interest to your readers. I wish I could write you of the many interesting experiences I have had since we landed in this war stricken country, but the censorship is so strict that I will have to wait until I have the pleasure of seeing you in dear old Richmond, if I am lucky enough to get back.

Last week I paid a flying visit to a military hospital in a large city, about twenty miles away, and saw Dr. Balleul, an orthopedic surgeon of note, operate on several cases; his bone transplantations were particularly good; but the most interesting work he does is the transplantation of fascia in severed nerves and tendons. He brings the ends of the nerve together, dissects out a piece of fascia lata and wraps it around the nerve, about as you would roll a cigarette; in about a month the function of the part is restored.

I wish very much I could see a copy of your journal occasionally, but it would be useless to mail it to me, for newspapers and periodicals are not coming through; we consider ourselves fortunate if we get our letters.

With kind regards,

Sincerely yours,
(Major) JUNIUS F. LYNCH.

"S. B.'s"

THE BRAVEST OF THE BRAVE.

"I have yet to meet the Flying Corps man," wrote an airman in *The Daily Mail* the other day, "who does not place in honor the work of the infantry before his own."

As an infantryman I have yet to meet the foot soldier who does not readily agree that the most heroic lads in the battalion are the stretcher-bearers. I never yet met a stretcher-bearer who didn't do his job faithfully and well, and doing that means that he has won decoration after decoration—even if he isn't wearing them. For there is excitement in fighting, there is quick pulsing of blood, there is "devil;" but there is none of these in kneeling in a shell-swept zone beside a shattered lad, binding his hurts.

My own battalion was particularly fortunate in its "S. B.'s." We had several lads who had been medical students, and we had as much confidence in them as your city man has in his Harley-street physician. That was a great

comfort, because one's life depends a good deal, as an infantryman, on one's company "S.B.s"—about four in number—for it is ten to one it will be one of them who will bandage one's wounds in the first place.

Stretcher-bearers are selected from the ranks of each battalion, and they become "specialists," like Lewis gunners or bombers. They work under and are trained by the battalion medical officer, and receive lectures and demonstrations at his hands. Actual carrying is perhaps their least important job.

Not of the R. A. M. C., wearing no distinguishing mark except a narrow white band—more often khaki-colored with mud—with the letters in red, "S. B.," worn around the sleeve above the elbow, having with them probably no weapons of defence, because they are generally too busy to carry or use them, theirs is a Christ-like task—to bear everything and not hit back. They work in the very midst of battle, where there is little time or opportunity to discriminate—even if the enemy wished to do so—between tenders of wounded and fighters. They seldom get promotion, because they are but a tiny band (sometimes the most senior of them all is a lance-corporal), and they don't get all the medals they win. Their ordinary, every day, every night job is tending wounded under fire. *I have never yet known an "S. B." hesitate to run into the middle of shell-fire or any other fire to help a hurt man; I have never seen an "S. B." with the "wind up."*

* * * * * *

The first one I met flopped into the hut one night about eight o'clock (in England). "Tired?" I said. He nodded. "Just finished a 25-mile march carrying stretchers. Doc. was seeing what we could do." He spoke with quiet triumph.

Next time was in a crater near La Basse—a hot place for snipers, rifle grenades, and so on. The trenches were narrow, too narrow for stretchers, and my big "S. B." friend solved the question of the wounded by carrying them all out on his back. How, think you, "S. B.'s" fared carrying stretchers over ground so deeply muddy that it took us eight hours to traverse a thousand yards when relieving? But they did it—God alone knows how—and made one journey after another.

The last time I saw them at work was near High wood, on the Somme. I was in a sap-

head perhaps a hundred yards from the enemy. It was lively because the Boche had the "wind up," and every now and then he put up green lights for artillery support, and we got "strafed." Just after one affair had subsided I heard a clear, strong voice in front shouting, "This way. Bill. Sure he's this way." I hailed him, and he replied that he was a Middlesex "S. B." (We had relieved the Middlesex that afternoon.) The *ta-ta-ta-ta* of a machine-gun swept across, but these two men took no notice. They were searching for life in that waste of death, and at last they found it—life with two broken legs but a great cheeriness. They came and borrowed my ground-sheet and brought the lad in on that.

"Knowned as there was a fellah out there," said the "S. B." "A bloke told me so down at Mametz, so I came back for him, see? How are you, mate?"—to the wounded lad. "We'll soon have you out of it. You're all right, you are. Blightly as easy as easy."

And off they went down the trench with the lad on my ground-sheet.

This may or may not be a holy war, but stretcher-bearing is God's own calling.—(*James Hodson, in Paris Edition, London Daily Mail, April 4, 1918.*)

THE WORK AND SACRIFICES OF THE MEDICAL CORPS.

The clipping from the Paris Edition of the *N. Y. Herald* directs attention to a tribute to the English medical corps by Lord Northcliffe, in a book which will be published, entitled "A la Guerre." He remarks that they "accomplish their task with a zeal beyond all praise," and their chivalry and enthusiasm of sacrifice are of the highest order.

Proceedings of Societies, Etc.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Reported by EMIL MAYER, M. D., New York, N. Y.

(*Continued from page 18.*)

Tuberculoma of the Tongue.

By CARL E. MUNGER, M. D., Waterbury, Conn.

Male, aged thirty years. The patient's tongue presented a crater-like cavity situated on the dorsum, at the junction of the middle and posterior thirds, in the median line, the prebase of the tongue. At the bottom of the

crater was a marked ulceration covered with a yellowish slimy secretion, and from the central ulceration were narrow sharply marked ulcerations radiating to the circumference of the thickened and indurated mass. The surface of the swollen mass was yellowish in color, and there was marked and exquisite tenderness upon the slightest pressure, with much pain at every movement of the tongue. This pain was localized and not radiating when the tongue was at rest. There was present also the condition known as nigrities.

While the tubercular ulcer may be primary or secondary, a primary tubercular lesion of the tongue is extremely rare; although a few cases of tubercular infection of the tongue following traumatism have been reported. Speaking generally, the tongue is more often inoculated from the lungs than the lungs or larynx from the tongue.

The case reported presented a marked deviation from the usually reported situation of tubercular lesions on the tongue, which have almost invariably been stated to occur either on the tip or sides, this one being on the dorsum, a site on which we usually find a gumma.

The prognosis is not dependent upon the lesion itself, but is influenced alone by the fact as to whether the patient is suffering from concurrent lesions in other parts of the body which are not susceptible to improvement, or is suffering from pulmonary tuberculosis, where there is a tendency to fibrosis. If the latter is the case, there is a fair degree of certainty that the tongue lesion may heal without local therapy, but if the pulmonary process is acute, with caseation and necrosis active, there is little chance of the tongue healing.

DISCUSSION.

Dr. Burt R. Shurly, Detroit: In a service of one hundred and fifty beds during the past six years in a tuberculosis hospital, we have had two cases of tuberculous ulcer of the tongue. Both of these occurred in a far advanced condition. I have yet to see, in my experience, a primary tuberculous larynx or a primary tuberculous ulcer of the tongue. Invariably, those cases have shown some other activity somewhere, if it is looked for sufficiently and thoroughly. These two cases suffered the most terrific pain and had progressed so far that there was absolutely no chance of curing the patients. We simply cauterized the

ulcerations and made use of orthoform and other measures for relief, in the hope that they might be able to have a little more comfort and take some nourishment. In all these cases it seems to me that we ought to determine the relative frequency of bacilli. By this means the diagnosis is proved and syphilis is excluded. What seems to me marvelous is that we do not have some ulceration on the tongue, from the fact that the mouth in these advanced cases is absolutely alive and swarms of tubercle bacilli.

Dr. Thomas H. Halsted, Syracuse: Seventeen years ago I removed the tonsils of a girl of twelve years, which were tuberculous. A year or two afterwards a surgeon removed the cervical glands of the neck, which were tuberculous. Two or three days later she developed a mastoid, and in the course of that developed a localized pachymeningitis. We thought it was tuberculous meningitis and expected her to die, but she recovered. Later on, in the course of two or three years, she developed tuberculosis of the phalanges, and one thumb and one finger were both operated upon by a general surgeon. She then developed tuberculosis of the nasal mucous membrane, which I enretted and applied lactic acid for a number of months. Then she developed a tuberculous ulceration of the alveolus, which must be now four or five years ago. Later, within the past two years, she has developed tuberculosis of the nasal septum, and the tuberculous process has extended so that now it involves the tip of the nose, and it looks as though she will lose the tip of her nose. This girl, during this whole period, has been a seamstress, and is of course living a fearful life, with a great deal of pain in the mouth and tongue, but she is very hopeful for some new means of a cure. She feels that ultimately she will get well. In spite of all the disease processes, we have never been able to discover anything in the lungs. The diagnosis has been made through scrapings and the findings of the bacilli. The very interesting thing about this case is the long duration of the disease and the number of lesions which have developed in various parts of the body.

Dr. Harmon Smith, New York City: I do not think this was a tuberculous ulcer. It was in the median raphe, away from the border of the tongue, where irritation of a tooth would

make an ulceration. It was a fertile field and one where tubercle bacilli would grow.

We should not confuse tuberculous fissures of the tongue and tuberculous ulcerations of the tongue with tuberculoma. It was about the location of the taste beakers in the median raphe.

Vincent's Angina.

By THOMAS HUBBARD, M. D., Toledo.

It is worthy of remark that many of the clinical articles are reports of very serious or fatal cases. This group of fatalities, in a disease that is usually transient and curable, and taking into consideration the rather scanty literature, arouses the suspicions that a large number of cases are not diagnosed. Laboratory study of all ulcers and false membranes is necessary to positive, timely diagnosis.

He calls attention to perborate of sodium as an efficacious local medicament. The nascent hydrogen dioxid penetrates and disintegrates necrotic tissue and would be, theoretically, an ideal inhibitor of anaerobic bacterial growth. Perborate of sodium is a constituent of the foaming dental powders, and has stood this empirical test with credit.

The local treatment resolves itself into careful applications limited to the diseased tissue. The glycerole of iodine (iodid of zinc, 2; iodine, 3; aq. dist., 5; glyc., 10), applied to the tonsil crypts, is probably the most efficacious antiseptic.

Theoretically the arsenical group is specific in action, and the writer thinks that experience is proving favorable.

He reports a case which presented such a hopeless condition prior to the administration of neosalvarsan, and the improvement following was comparable only to that which we see in diphtheria cases following a proper dose of antitoxin.

In cases that do not yield promptly to this treatment cacodylate of sodium, two and one-half to five grains, repeated in twenty-four or forty-eight hours (if kidneys are not affected). In the malignant type, not improving under the above treatments, give neosalvarsan 0.6 gram (average body weight adult) intravenously.

DISCUSSION.

Dr. Emil Mayer, New York City: I would take some exception to the originality of the use of glycerin of iodine. When I first called

attention to this affection we know so well now, I then spoke of the use of iodine, iodid of potassium, and glycerin as a local application. I have since learned to know the tremendously valuable effect of the salve, either injected intravenously or applied locally.

A very short while ago a patient presented himself at the Mt. Sinai Hospital, New York City, with a very large ulceration at the under surface of the tongue that had been existing for a couple of months and due to the bacillus Vincent. A local application of the salvarsan with an intravenous injection, the Wassermann having first been proven negative, resulted in a cure within forty-eight hours. I would like, however, to see some of the results from the application of the salvarsan locally, without the intravenous injection. It is very possible, indeed, that the application itself would do all that we would require, and the patient might not even require an injection; but it does not mean by any means that because a patient has recovered that that patient has had syphilis, but that this arsenical preparation has a beneficial effect on the treatment and cure of this disease.

Dr. Thomas Halsted, Syracuse: About a year ago a physician consulted me with the statement that for six weeks he had had a severe tonsillitis. He had contracted this, apparently, from dancing one evening with a school teacher, who had at the time a sore throat which was diagnosed the next day as diphtheria. She died in the course of ten days from Vincent's angina. This doctor developed within a short time an ulcerative sore throat. He was seen by a number of specialists, but the diagnosis was not made, and he finally came to me. I found an extensive and deep ulceration of both tonsils and a marked cervical adenitis. The ulceration was soon proven to be Vincent's angina microscopically. A short time before this my attention had been called by a general practitioner to the possible use of enesol in the treatment of Vincent's angina. Enesol is a French preparation of arsenate of mercury. We used enesol hypodermically and did nothing else. There was no local treatment whatever. The improvement was marked, and at the end of six days, during which time three treatments were given, the ulceration was perfectly healed. Since this case I have treated not less than six or eight cases of Vincent's angina with enesol,

and all of them with most satisfactory and rapid improvement. I think enesol is a specific for Vincent's angina, and preferable to salvarsan, because of the greater safety and simplicity of the treatment.

Dr. Thomas Hubbard, Toledo: I am very glad that Dr. Mayer mentioned the use of iodine.

This formula is iodid of zinc, glycerin. Whether it is more penetrating than the ordinary iodine glycerin preparations, I do not know.

As to the choice of the arsenical preparations, I think that is a question of clinical proof. Dr. Halsted's report only goes to show that the use of some member of the arsenical group is a dependable treatment of Vincent's angina type of infection.

An Endolaryngeal Removal of an Unusually Large Lymphoangioma From the Larynx, With Complete Recovery of the Patient.

By CHARLES W. RICHARDSON, M. D.,
Washington, D. C.

As is well known, this type of growth is very unusual and rare in the larynx, lymph angioma being rarer than the typical angioma. This growth presented a gross appearance, of a large bluish, mottled mass in the supracordal portion of the larynx, having its attachment on the right side from the false cord, the ary-epiglottidean extending over to and covering the false cord on the opposite side. This was removed by endolaryngeal method, the writer having first tested the fact that it was not a hemorrhagic growth. On removal by puncture, it had a soft pulsatious feel and exuded a syrupy bloody fluid. It was five centimeters in length, three and a half centimeters in breadth, and two and one-half centimeters in depth. The pathologic investigation demonstrated it to be a true lymph angioma.

The paper deals with the method of operating in these cases, and also calls attention to the fact that this is the forty-second case of angioma, and its modifications, which have been found in the larynx.

DISCUSSION.

Dr. J. M. Ingersoll, Cleveland: I had the privilege of seeing this case before it was operated upon, and was very much interested in the report.

I think that it took considerable courage for Dr. Richardson to determine whether or not the growth was an angioma by incising it. I discussed the case with him then, and we both wondered what the outcome would be, and were suspicious of malignancy. I never had seen anything like it before. The end result is very favorable.

Dr. Emil Mayer, New York City: These cases are especially interesting. One particularly important thing is that the trained eye of the laryngologist sees at once that the diagnosis that is so often made in nearly every one of those cases is wrong, and that the cases are not of a malignant nature. I can picture for myself the view that Dr. Richardson had of that patient, with a proper light, where he at once concluded that the original diagnosis of malignant disease which had been made was wrong. I believe that we can in most instances make a diagnosis macroscopically.

I must congratulate Dr. Richardson on his courage in putting in a knife to see if it was a bleeding tumor, and also on his successful removal of it intralaryngeally. The growth itself differs from most of the others on record, in that it was partially external and partially within the larynx. It is very remarkable that a patient with so large a growth should be able to get along without a great deal of dyspnea. To my mind a case of this kind would be ideal for suspension. With very little effort one could draw the growth into a snare and remove it, and if necessary cauterize the place. In the case I reported a year ago the operation was done externally, and the growth was removed and the mucous membrane sewed over. I am confident that that was the only way the case could have been treated, for the reason that it was below the false cord and not above it.

Dr. Henry L. Swain, New Haven: Some of those present may recall a case in which I removed a tumor in the same manner as Dr. Richardson did, the report of which appeared in the Transactions for 1892. This growth, however, was lower down than it was in the case of Dr. Richardson, and it still holds the record for size in strictly intrinsic growths of the larynx. The growth was in the anterior commissure, and began only slightly above the place where the two cords come together, so that more of the base of the tumor was below than above. When the patient came into my

office one could see nothing but the growth upon expiration, but during inspiration this tumor would move down so that the air could get by it. The patient had been living in that way with a very hoarse voice and with difficulty in breathing for nearly two months. He ran for a trolley car and fell down and was nearly asphyxiated, and relating that to me as I looked down into his larynx, I trembled at the idea of getting the tumor out. I had no idea of the up and down dimensions of the tumor; the diameter as I looked down upon it was just what would fill the chink of the glottis, but the vertical dimensions were three times the horizontal dimensions. I told the man that if he was a good soldier I would try to take it out. He consented and I put cocaine in, and taking a snare got a good hold of the tumor twice. I tried to get the tumor out but failed. The man was getting blue in the face, but I put on a whole lot of power and got it out. I was more scared when it was finally out than I was before. It was a tremendous growth, much larger than was apparent to the eye, and still holds the record for size. I was prepared for the eventuality of hemorrhage, and told the man to throw himself forward with his head down, hanging over the end of the couch. He minded exactly as he was told, and hardly a drop of blood came away. He came back again on the third day and one could see then where it had been, just above the vocal cord. The patient had no recurrence. Dr. Richardson's specimen is a monster and the result of his skill is most gratifying.

Dr. Charles W. Richardson (closing the discussion): I wish to add just one word to Dr. Ingersoll's remarks, a point which he did not make quite clear. We were a little suspicious of the malignancy of this growth—in fact, we could not quite eliminate the matter from our minds—before we had the result of the pathologic findings.

Book Announcements and Reviews

The Semi-Monthly will be glad to receive new publications for acknowledgment in these columns, though it recognizes no obligation to review them all. As space permits we will aim to review those publications which would seem to require more than passing notice.

Neurosyphilis. By E. E. SOUTHARD and H. C. SOLOMON. Published by W. M. Leonard, Boston. 1917.

The present work is based chiefly on the personal investigations conducted in the Boston

Psychopathic Hospital. It is of special interest, as it presents the problem of syphilis of the nervous system from every possible standpoint. It describes cases ranging from a mild single-symptom disease to complex symptom-group, such as we find in paresis, from the acute to the most chronic forms. Each of such cases was verified by autopsy findings. Such a monumental work must be of immediate interest, not only to the neurologist and psychiatrist, but also to the general practitioner.

After having presented all the details in the enormous variety of nervous syphilis, including the pathological processes underlying it, the authors conclude with chapters on (1), the unity in the phenomena of neurosyphilis; (2), the value of a hopeful approach to the therapy; (3), the value of applying tests to every case of neurosis or psychosis. Finally, in an additional chapter, a brief description of the technique in each test of syphilis is presented.

The book is an extremely useful addition to the already published works on syphilis.

ALFRED GORDON.

The Brain in Health and Disease. By JOSEPH SHAW BOLTON (London). Published by Longmans, Green & Co., New York. Price, \$5.75.

The method employed by the author for the investigation of the function of the brain in normal and morbid states is that of the older great writers. While due acknowledgment is given by him to the researches in the field of biochemistry and bacteriology on the one hand, and the psychological interpretations of morbid mental phenomena on the other, nevertheless he strongly believes in the method of research, which has for basis anatomy, physiology, histology and clinical pathology.

After a quarter of a century of personal study he presents in this volume the result of his painstaking labor in a brilliant manner.

One hundred and twenty-nine pages are devoted to the histology and physiology of the normal brain. Particularly interesting and very well described is the chapter on the function of speech.

In the pathological part of the volume twenty-six pages are devoted to the various appearances of the brain in morbid conditions. Here an attempt is made to find explanations for mental disease. The classification of the latter is not in conformity with that adopted

by the modern school following Kraepelin, but it reflects the classification of the English writers in general who have not followed literally the German methods. However, the individual description of various forms of insanity is of unquestionable value. It is terse, full and of the highest order. Dr. Bolton is a great figure in the psychiatric world. All his writings are of great value. The book is to be recommended to every student of psychiatric problems.

ALFRED GORDON.

Problems of Subnormality. By J. G. WALLACE WALLIN. Published by World Book Company, Yonkers-on-Hudson, New York.

As a director of the Psycho-Educational Clinic in St. Louis, the author had large opportunities for the study of the problems of subnormality from psychological and sociological stand points. For a more or less complete grasp of the subject he proposes four fundamental questions for study and solution: First, the elaboration of a method whereby a differential diagnosis of various degrees of mental abnormality could be established. Second, the necessity of providing differentiated educational management in accordance with the diagnosis. Third, organization of a system for after-care. Fourth, the vast problem of preventive measures. The author lays special stress upon the first question. He considers the latter as the most important. He warns against possible errors which may arise from including in the category of mental defectives border-line and backward children. He makes a strong plea for the establishment of norms for tests of various phases of mentality, so that grading and classification could be of immediate practical use.

In another chapter the problem of Epilepsy in all its possible relations is discussed at length. Finally, an important part of the work is devoted to state provisions for defective children. The entire book is evidently written by a serious thinker in a very attractive and instructive manner. It can be highly recommended for the educator, sociologist, as well as to the psychiatrist.

ALFRED GORDON.

Studies in Forensic Psychiatry. By BERNARD GLUECK, M. D. Published by Little, Brown & Co., Boston. Price, \$2.50.

The chief aim of the present work is to demonstrate the truth that merely descrip-

tive methods of study of criminality are insufficient and inadequate, but that they must be accompanied by an intensive analysis from a psychopathological standpoint. The modern criminologist must study the individual delinquent from all angles. It has been proven that the former methods for eradication of criminal behaviour are not only useless but actually obnoxious. The idea of punishment must be abandoned and in its stead more scientific measures be adopted, such as probation, suspended sentence and parole.

The author very interestingly discusses the entire subject of criminality as a social problem. His book is divided into five chapters, the most important of which are the first two in which the psychogenesis, nature and treatment of the psychoses of prisoners are analyzed and explained. The chapter on Malingering is of practical value. The entire work is the result of prolonged observation, of a clear insight and of proper discrimination. Sociologists and psychiatrists will find it indispensable.

ALFRED GORDON.

Editorial.

Urgent Appeal Made For Doctors.

There is nothing that puts more heart in a soldier and gives him as much confidence in the thick of a fight as to feel that, if he suffers a casualty, he will receive proper medical care and treatment. The rapid expansion of the Army calls for a largely expanded Medical Reserve Corps for this branch of the service, and in the Navy, an increased demand for medical officers has been created by the additional responsibility of the Navy in protecting ships engaged in the transportation of troops and supplies to Europe. The Army and Navy are now in need of thousands of medical officers and there is every indication that need will increase as months go by.

The medical profession has responded as has no other profession, having contributed already nearly twenty per cent. of its entire number for service in the Army and Navy. But now, it is not a question of a few hundred medical men volunteering for service; it is a question of the mobilization of the profession.

Requirements for commission are that the applicant shall be a male citizen of the United

States, a graduate of a reputable medical school authorized to confer the degree of M. D., between the ages of 22 and 55 years, and professionally, morally and physically qualified for service. The Medical Examining Boards in this State to which you may apply, according to your location, are Ft. Monroe, The Surgeon; Norfolk, Capt. Burnley Lankford, M. R. C., 530 Shirley Ave.; Richmond, Major Robt. C. Bryan, M. R. C., President, Grace Hospital; Roanoke, Major Richard G. Simmons, M. R. C., Watt & Clay Bldg.

A personal call to service is now made to you—an appeal to your loyalty and patriotism at this critical moment in world affairs. The medical profession as a whole will do its duty. Some of us will have to go into the service and some remain at home. We should decide *now* where our duty is greatest.

Alcoholism And Epilepsy.

The occurrence of epileptoid attacks in the course of alcoholism points to a certain relationship between the two conditions. Alcoholism, like other intoxications, such as saturnism and ergotism, may be accompanied by sudden attacks of cramps in certain muscles, by vertiginous attacks and by special psychic states. They are all of sudden onset, of very brief duration and followed by total amnesia of what had occurred. In the psychic states there may suddenly appear hallucinatory images or a delirious condition with confusion. As they are all accompanied essentially by a disturbance of consciousness, the nature of these attacks is fundamentally epileptoid and we deal here with varieties of *petit mal*.

Besides these manifestations, we observe in alcoholism, also epilepsy of the convulsive type. In order to determine the relationship of the two as cause and effect, one must bear in mind the following possibilities: First, epileptic convulsions may occur in acute alcoholism in individuals otherwise sober; second, epilepsy may occur in the course of chronic alcoholic intoxication either *à propos* of a sudden excess or else without the latter. In both cases one must consider the possibility of personal or hereditary morbid predisposition or the existence of epilepsy long before the alcoholism.

The epileptogenous character of alcohol is well established. In the acute cases an excessive consumption of alcohol may bring on a convulsive seizure in individuals even without

a previous history of epilepsy. Here the direct relationship can be established from the fact that when the toxic material is eliminated, no attacks take place. The condition is analogous to the convulsive seizures in children in the acute stage of infectious diseases.

In the chronic variety of alcoholism one meets with cases in which, without incidental excesses and many years after the habit had been acquired, epilepsy develops. Here the individual is very probably a carrier of organic alterations in the brain upon which the convulsions depend. This is the most serious form of alcoholic epilepsy. The convulsions are probably due here to the sequelae of meningo-encephalitis, caused by chronic alcoholic intoxication. Shrinkage of the brain due to an increase of connective tissue and atrophy of cerebral tissue: pachymeningitis, degeneration of blood vessels leading to miliary aneurisms and cerebral softening from embolism or hemorrhages—these are the common findings in chronic alcoholism. This is the form of alcoholic epilepsy which is transmissible through heredity. The chemical changes produced in the germ cells by alcohol are capable either to create abnormalities in offspring or else a loss of power of reproduction. These facts are firmly established by the experimental work of Ch. R. Stockard and G. Papanicolau.

As to the pathogenesis of alcoholic epilepsy, some believe that autointoxication from the liver, or kidneys, is the primary cause (Donath, Guidi, and especially Ceni.) Others are of the opinion that autointoxication may originate in the chemical processes of glands with internal secretion (Levy, Rothchild in France, Parhon and Goldstein in Rumania). Still others believe that the chronic alcoholic individual possesses a certain poison which may be called *alcohologenic toxin* by analogy with the bacterial toxins elaborated in the course of infectious diseases. In the course of and because of prolonged alcoholic intoxication, this special toxin is being accumulated and produces epileptic discharges.

If we refer to statistical data concerning the direct relation of alcohol to epilepsy, we find the following account: Magnan observed epilepsy in 11 per cent. of alcoholics; Dronet in 10 per cent., Echeverria in 38 per cent., Moeli in 33 per cent., Furstner in 38.8 per cent., and Stepanoff in 46 per cent. The problem of

relationship as cause and effect is of the highest social importance.

ALFRED GORDON.

The Medical Society Of The State Of North Carolina,

Had a most pleasant and instructive meeting at Pinehurst last month. In fact, so much did the members enjoy themselves, that they decided upon having their next annual meeting also at Pinehurst. A number of North Carolina doctors who have joined the Medical Reserve Corps were in attendance as were also several regular army officers. Among these latter was Dr. Goldberger, who spoke on pellagra—the subject in which he has done so much research work.

Dr. Cyrus Thompson, Jacksonville, was elected president, and Dr. Benj. K. Hays, Oxford, was re-elected secretary.

Dr. W. C. Gibson,

Suffolk, Va., who has been taking a special course in the naval college in Washington, is now at the Norfolk naval base where he has been assigned to duty.

Dr. R. W. Garnett,

Formerly a practising physician of Charlottesville, Va., but who for the past year has been serving as whole-time health officer of Fauquier County, Va., has accepted a position with the State Board of Health as Director of Medical Inspection and Epidemiology.

Married—

Maj. Giles B. Cook, Medical Corps, U. S. National Army, but formerly of Richmond, and Miss Olive Smith, May 1.

Dr. Edwin Clinton Bryce, Richmond, and Miss Essie Edwards Bugg, Norlina, N. C., April 17.

Dr. C. Bernard Pritchett, health officer of Danville, Va., and Miss Shepherd Leak, Wadesboro, N. C., April 17.

Surg. Reginald Buchanan Henry, U. S. Navy, and Miss Jane Byrd Ruffin, Norfolk, Va., April 30.

Capt. W. Fewell Merchant, M. R. C.,

Has been visiting his family at Manassas, Va.

Dr. William T. Wimbish

Has returned to his home at Clarksville, Va.,

from Camp Greenleaf, Ft. Oglethorpe, Ga., where he had nearly completed his course in training for the Medical Reserve Corps. A severe attack of double pneumonia, complicated with pleurisy, left Dr. Wimbish in such a condition that the War Department was not willing to permit him to go over seas, and will give him an honorable discharge from the service.

Dr. and Mrs. Emmett R. Bradley

Of Highland Springs, this city, have been spending some time in Charlottesville, Va.

Oklahoma State Hospital Damaged By Fire.

The State Hospital for Insane, at Norman, Okla., was swept by fire early on the morning of April 13, and thirty-seven patients, boys and men from sixteen to thirty-six years, were victims of flames. Three buildings, all of them frame, were destroyed, the loss being estimated at \$40,000. Sixty employees of the hospital, including many women nurses, did excellent work in rescuing violently insane and helpless patients from the flames.

American Medical Association.

For those interested in attending the coming meeting of the American Medical Association, we may state that the dates of this meeting are June 10-14, inclusive. Many interesting features are promised. Hotel reservations should be made in advance.

The American Association of Anesthetists

Will meet in Chicago, June 9 and 10, on the evenings of the clinic days of the American Medical Association. Dr. Albert H. Miller, of Providence, will preside. The program, in addition to other interesting features, will include a Symposium on Shock.

Hospital To Care For Wounded To Be Established In Richmond.

On the campus of 291 acres of Richmond and Westhampton Colleges, just outside of this city, will be established a base hospital, in the near future, for the treatment of wounded American soldiers returned to this country. The six large buildings already standing on the grounds will be utilized fully and many other structures following the same style of architecture, will be erected to meet the needs. It is planned to have 2,000 beds in the hospital. Both colleges will have quarters in the

city for the period of the war. The government will be given possession on June 1, immediately after the close of the schools, and will have possession of the buildings and grounds for a period of ninety days after the close of the war.

Dr. Stuart McGuire, who is now on active duty in the Medical Reserve Corps, has offered his private hospital, St. Luke's, as a home for the girls' college during the period of the war, and the offer has been accepted.

Dr. J. Sinkler Irvine,

Of Evington, Va., had the misfortune to lose his home by fire the latter part of April. The house, which was completely destroyed, was valued at \$10,000.

Dr. J. M. Hutcheson

Qualified last month in the hustings court of this city, as one of the trustees of the schools of Richmond.

Maj. Stuart McGuire, M. R. C.,

Who was instrumental in organizing Base Hospital No. 45, left Richmond April 22, for Camp Lee, to join the unit which has been in training there for several weeks. He was accompanied by Lt. R. C. Fravel, one of the officers of the Unit. A number of the medical officers of the Unit were already at Camp Lee.

Dr. A. S. Hudson,

Of West Point, Va., was a visitor in Richmond the middle of April.

Dr. H. B. Mahood,

Of Emporia, Va., who was commissioned captain in the Medical Reserve Corps, entered upon his training in April.

Dr. Edward McCarthy,

Formerly one of the city physicians of Richmond, recently tendered his resignation, and has moved to Cherrydale, Va.

Dr. Thomas D. Jones

Was appointed examining physician on the local board for the third district of this city, to succeed Dr. E. T. Rucker, deceased.

Petersburg's Free Clinic Opened.

The U. S. Free Clinic was opened in Petersburg, Va., April 17, and will be devoted exclusively to the treatment of communicable diseases among civilians. It is in charge of Dr.

S. B. Pole, of the U. S. Public Health Service, assisted by male and female trained nurses, and will be conducted in co-operation with the physicians of that city and vicinity, as an extra cantonment zone clinic.

Dr. J. H. Moore,

Until recently physician for Pounding Mill Quarry, at Pounding Mill, Va., has moved to Pardee, Va., where he is working with the Blackwood Coal and Coke Company.

Lt. W. Reid Putney, M. R. C.,

Formerly of Amelia, Va., who finished the course of training at Ft. Oglethorpe about the first of April, has been assigned to administrative duties at Camp Custer, Mich.

Dr. S. B. Nickels,

Who was located at Clinchfield, Va., is now at Clinchport, Scott County, Va.

Dr. W. E. Bundy,

Until recently of Indian, Va., is now located at Newhall, W. Va.

American Proctologic Society Not To Meet this Year.

Owing to conditions brought about by the war, the American Proctologic Society has announced, through its secretary-treasurer, Dr. Collier F. Martin, of Philadelphia, that it has decided not to hold its meeting in Chicago on June 10 and 11, and that the Society will probably not meet again until after the war.

Now Lt. Col. A. P. Upshur, M. C.

Dr. Alfred P. Upshur, son of Dr. and Mrs. J. N. Upshur, of this city, has recently been commissioned a Lieutenant Colonel in the Medical Corps of the National Army, and has been ordered to command U. S. Hospital No. 3, at Colonia, N. J. This hospital has a capacity of 1,500 beds.

Dr. N. I. Ardan,

Formerly of Bristol, Va., who was commissioned in the service of the U. S. Army last June, was at the Base Hospital, Camp Jackson, S. C., last month, with the rank of Captain in the Medical Reserve Corps.

Cities As Well As Rural Districts Sending Doctors.

According to a statement made the first of this month by the State Department of

Health, the rural districts of Virginia are not alone in the sacrifices incident to the shortage of physicians occasioned by the war. The cities are contributing their full quota as well. Ninety-four Richmond doctors have applied for commissions in the army to the first of this month, seventy-two of whom had already been commissioned. A number have also gone into the naval service, making one hundred a conservative estimate of Richmond's medical men serving with the colors.

Dr. and Mrs. J. W. Henson,

Daughter and son, of this city, enjoyed an extended visit to Florida in April.

Dr. C. H. Lewis,

Of Richmond, who went to Camp Lee, last fall, as director of an ambulance company raised in this city, has been promoted to the rank of major, and been made director of the field hospital at Camp Lee.

Dr. Ennion G. Williams,

State Health Commissioner of Virginia, was among the speakers at the annual meeting of the American Academy of Political and Social Science, whose sessions were held in New York beginning April 26.

Delegates To Sociological Congress.

Governor Davis appointed the following doctors among the delegates to represent Virginia at the Southern Sociological Congress, held at Birmingham, Ala., last month: Drs. R. S. Bosher, J. S. Horsley and E. G. Williams, Richmond; C. R. Grandy, L. T. Royster and Powhatan S. Schenck, Norfolk.

Dr. J. C. Bodow,

Of Hopewell, Va., visited relatives in Winchester, Va., last month.

Dr. Roy K. Flannagan,

Chief Health Officer of Richmond, attended the State Conference on Charities and Corrections in Bristol, in April, and was among those taking part in the program.

Homicides, Suicides Alcoholism Reduced.

There were two hundred fewer deaths in Virginia from the three above named causes in 1917 than in 1915. In 1915 (the last wet year), there were 554 deaths from the three causes; in 1916 (in which there were two dry months),

462; and in 1917 (the first complete dry year), 354; this shows a conservation of human life of two hundred persons. Homicides decreased from 278 in 1915 to 186 in 1917; suicides from 171 to 124; deaths from alcoholism from 105 in 1915 to 44 in 1917.

Join Hospital Unit.

Major William H. Goodwin, University, Va., and Captain John W. Carroll, Lynchburg, Va., have both been ordered to join their Base Hospital Unit No. 41, at Camp Sevier, Greenville, S. C., to receive final training preparatory to going over seas.

The Virginia State Board Of Medical Examiners

Are to hold their next semi-annual meeting in Richmond, June 18-21, 1918. All applications should be complete and in the hands of the secretary-treasurer, Dr. J. W. Preston, Roanoke, Va., at least ten days prior to date of examinations.

Dr. J. B. McKee,

For some time of Troutdale, Va., is now located at Woodson, Va.

Dr. A. M. Sneed,

Toano, Va., has been appointed by Judge Tyler as coroner of James City County, this State.

Dr. E. E. Epperson,

For a number of years of Abingdon, Va., moved to Meadow View, Va., the first of this month.

Dr. H. Graham Stoneham,

Of Waverly, Va., who has entered the medical corps of the army, recently visited friends and relatives in Northumberland County, Virginia, to say good-bye before sailing for France.

Dr. and Mrs. George B. Barrow,

Clarksville, Va., were recent visitors in this city.

Virginia State Board of Pharmacy.

At the annual meeting of the Board in this city, last month, Mr. John E. Jackson, of Tazewell, was re-elected president, and Mr. Charles D. Fox, of Roanoke, secretary. Mr. Fox suc-

ceeds Mr. E. L. Brandeis, of Richmond, who was chosen assistant secretary.

Free Dental Work For N. C. School Children.

The North Carolina Department of Health will this summer set aside ten counties in which it will give school children dental treatment free of charge. If the experiment works it will be put into operation throughout that State.

Internes Appointed For Virginia Hospital.

The following appointments to the medical staff of Virginia Hospital were made the first of this month: Chief interne, Dr. H. B. Hinchman; assistants, C. E. Brown, Willie Meyer, C. L. Nance, Earle E. Pittman and J. R. Cain; all except Dr. Hinchman being members of the graduating class.

Lt. W. R. Weisiger, M. R. C.,

Who was one of the Richmond doctors to volunteer for service, about the middle of April cabled his safe arrival "over there." Shortly before sailing, he was transferred and promoted to the position of senior surgeon of the Three Hundred and Second Train, Headquarters and Military Police, Seventy-seventh Division.

Dr. J. J. Ligon,

Of Lynchburg, Va., who volunteered for service in the army medical reserve corps, was called into the service the first of May, with the rank of first lieutenant.

Dr. and Mrs. J. Allison Hodges,

Of this city, were among the Virginians who attended the meeting of the North Carolina State Medical Society, at Pinehurst, last month.

Tennessee State Medical Association.

At the meeting of this Association last month, Dr. Richmond McKinney, of Memphis, was elected president, and Dr. Olin West, of Nashville, was re-elected secretary.

Dr. W. D. Meeks,

Of Massies Mills, Va., visited his son in Amherst, Va., recently.

Dr. Franklin M. Hanger,

Staunton, Va., has returned from a trip to Richmond, Ky., where he was called in consultation.

Dr. and Mrs. H. B. Spencer,

Of Staunton, Va., it is announced, will move to Philadelphia the latter part of June, to make their home.

Dr. E. C. L. Miller,

Of the faculty of the Medical College of Virginia, has received appointment as chemist on the staff of the Richmond Food Administrator. He had been acting in this capacity for some time.

Dr. S. E. Moore,

Son of the late Commodore W. S. Moore, U. S. N., has been elected to be post surgeon and professor of biology at the Virginia Military Institute, Lexington, beginning July next.

Medical School Commencements.

Both Virginia medical schools will have their commencements next month. The Medical College of Virginia, in this city, has set the date for their finals as June 2 to 4 inclusive, and the Medical Department of the University of Virginia will hold their exercises in connection with those of the rest of the University on June 9 to 11 inclusive.

Dr. Henry Christian

Returned to his home in Boston, Mass., the latter part of April, after a visit to his mother, in Lynchburg, Va.

Dr. and Mrs. Herbert L. Kneisley

And young daughter, of Hagerstown, Md., were recent visitors in Woodstock, Va.

Dr. Charles W. Banner,

Of Greensboro, N. C., who is in the medical reserve corps of the army, has cabled his family of his safe arrival at a port in France.

Acting Assistant Surgeon (Female)—Wanted.

The U. S. Civil Service Commission, Washington, D. C., announces an open competitive examination for acting assistant surgeon, for women only, May 21, 1918. Vacancies in the Public Health Service, at salaries ranging from \$1,800 to \$2,500 a year, and in positions requiring similar qualifications, at these or higher or lower salaries, will be filled from this examination.

Appointees to certain positions will be expected to make physical examination of fe-

male workers and immigrants, conduct sanitary surveys, and perform other duties of routine character.

Competitors will not be required to report for examination at any place, but will be rated on physical ability, education, training and experience. For further information apply to above commission.

Change of Name.

Beginning May 1, 1918, the organization which has been known for some years as the National Association for the Study and Prevention of Tuberculosis changed its name to the National Tuberculosis Association, and their address to 381 Fourth Avenue, New York City.

Physician Wanted.

In addition to the list of locations needing physicians, recently published in this journal, we are advised that there is a location for a physician at Pounding Mill, Va., for contract work and good country practice. Communicate with C. M. Hunter, at above postoffice.—(Adv.)

Dr. Frank H. Redwood,

Of this city, has been promoted to a captaincy in the Medical Reserve Corps of the Army, and is at present stationed at Camp Pike, Ark.

New City Physicians.

Drs. Lawrence Ingram and T. L. Driscoll, who were recommended by Dr. R. K. Flannagan, chief health officer of Richmond, have been appointed by the Administrative Board to fill vacancies in the city physicians' corps. Dr. B. L. Phillips has reconsidered his resignation which was recently tendered the Board, and consented to serve until the expiration of the present term.

Obituary Record.

Dr. Everett W. Gee,

A well known and popular physician of this city, died at his home here May 6, after a short illness from heart trouble. He was born in Lunenburg County, Va., 52 years ago. He studied medicine at the Medical College of Virginia, from which he graduated in 1889, and was appointed an interne at the Richmond City Almshouse. This position he later re-

signed to return to his native county to practice. About twenty years ago, he returned to Richmond and had since made his home here. He was at one time a member of the faculty of the Medical College of Virginia, and was identified with his local and State medical societies. He is survived by his wife and two children, as well as by a large family connection.

Dr. William Beverley Pettit,

A prominent physician of Buckingham County, Va., killed himself in his home at New Canton, that County, April 27. He had recently been made surgeon to the Richmond plant of the American Locomotive Company, and had only a day or two previously returned to his old home on account of being sick. His suicide was attributed to depression on account of ill health. Dr. Pettit, who was sixty years of age, received his medical degree from the University of Maryland, School of Medicine in 1883. He was a member of the Medical Society of Virginia and a local surgeon for the C. & O. Railway. In the last couple of years he had taken several trips abroad in the capacity of physician on British ships. His wife died a year or more ago.

Dr. Philip Pendleton May,

One of the oldest and best known physicians of Louisa County, Va., died at his home at Trevilians, April 29, aged 74 years. He was paralyzed little more than a year ago, since which time his health had not been good. While still in his teens, he enlisted in the Confederate army and was wounded at Appomattox. After the war, he returned to his native home in Louisa County, where he farmed until he decided to study medicine, which he did at the Medical College of Virginia, graduating in 1869. In addition to his professional work, he took an interest in the politics of his county and was for a number of years County Treasurer and for some years chairman of the county board of supervisors. He is survived by his widow and one daughter.

Dr. J. A. Meriweather,

For many years a prominent practising physician of Bedford County, Va., was found dead in his bed at his home at Holcombs Rock, on the morning of April 29. He was 65 years of age. Dr. Meriweather received his medical education at New York University, Medical College, from which he graduated in 1882.

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Original Communications.

CARCINOMA OF THE BREAST; SOME POINTS IN OPERATIVE TECHNIQUE.*

By J. W. HENSON, M. D., F. A. C. S., Richmond, Va.

Associate Professor of Surgery, Medical College of Virginia;
Surgeon to Virginia and Memorial Hospitals.

Until we are better informed about carcinoma, particularly its etiology, the hope of its victims must lie in early diagnosis and immediate radical operation, when possible. The victims of carcinoma of the breast are often condemned to years of inconvenience and sometimes suffering by the radical nature of the operation. Therefore, when undertaking surgical measures for relief of carcinoma of the breast, I hold that the surgeon should have in mind two ideas, viz., to make the operation efficient and at the same time provide for the subsequent comfort of the patient as far as possible.

The principles to be observed in putting into effect the first idea are: 1st, to remove over a sufficiently wide area all structures (including deep fascia) that bear lymphatic vessels or glands. The removal or retention of the pectoral muscles I will discuss later in connection with the question of providing for the subsequent comfort of the patient. Following the teaching of Handley, I believe that (with the exception of the very early cases), the deep fascia should be removed as far internally as the sternal border of the opposite pectoralis major, below over the upper part of the abdominal muscles of the same side and posteriorly beyond the outer border of the latissimus

mus dorsi. 2nd, that the breast should be handled as little as possible during the operation. In this connection, I will state that I believe, in the view of Willy Meyer, that the axilla should be cleaned before attacking the breast and adjacent structures to be removed. 3rd, that all dissecting, as far as possible, should be done with the knife, using scissors only occasionally, and using the finger or gauze never, when possible to avoid it, because of the greater risk of spreading cancer cells. 4th, that the axilla should be cleaned by the extra fascial method of dissection, thus minimizing the handling of the fat, cellular tissue, lymphatics and glands in this space. The execution of this plan aids materially in carrying out the principle of sharp dissection.

Before beginning the dissection of the axilla above, I approach the subscapular artery from below beneath the deep fascia, locate and expose the greater part of this vessel with its accompanying veins and the long subscapular nerve. I suggest this as a method to facilitate the extra fascial dissection.

The principle to be observed in providing, at the time of operation, for the subsequent comfort of the patient, is to cover the axillary vessels and brachial plexus with some structure which will prevent or minimize the formation of scar tissue and consequent pressure on the axillary vein and the nerves—the pressure which produces the persistent œdema of the arm and forearm and nagging neuralgic pains.

Our observation of and experience with these cases ought to be sufficient to have us keyed to the proper appreciation of the gravity of the situation. Experience is the best teacher, but sometimes the forceful expression of the ex-

*Read before the forty-eighth annual meeting of the Medical Society of Virginia, at Roanoke, October 30-November 2, 1917.

perience and observation of others gives us a firmer hold on our views and makes us feel more keenly our responsibility. The idea that something ought to be done to prevent scar tissue pressure in the axilla following breast operation was crystallized into a determination to make some effort along this line when I learned of the facts and statistics given by Greenough in a paper read before the American Surgical Association in 1907. He made an analysis of the cases operated upon for carcinoma of the breast at the Massachusetts General Hospital over a period of ten years, from 1894 to 1904. He covered the states adjacent to Massachusetts by written communications and interviews with doctors and patients. He demonstrated that over 30 per cent. of these cases had edema of the arm and forearm after the operation. As there can be no fat or fascia retained in these operations, we must either use an adjacent muscle or transplant fat or fascia from elsewhere to cover the axillary vein and brachial plexus.

I believe it is feasible to raise a flap from the sub-scapularis muscle, turn it outward over the vessels and nerves and stitch it to the tendon of the pectoralis major and adjacent fascia, but this will weaken another muscle of the upper extremity where two have already been sacrificed. Recently I have been retaining the pectoralis major muscle for this purpose. The muscle is divided early in the operation near its outer attachment, just internal to the course of the vessels and when all dissecting is completed it is stitched to its tendon and the adjacent fascia with mattress sutures so placed as to turn the cut edges backward against and to the inner side of the vessels. Retention of the pectoral muscle is, of course, not to be considered if, when examining a patient, there is any doubt as to the tumor being freely movable over the underlying muscle.

The strongest incentive I have for retaining and using the pectoralis major is that Bryant, of London, reported that over a period of forty years he had seen recurrence of carcinoma in the pectoral muscle in only one case. Murphy reported two years before his death that he had never seen a case of recurrence in the pectoral muscle. Murphy used both pectoral muscles for protecting the axilla, but severed them at their costal attachment and turned them back into the axilla, holding them with a few stitches. There are two objections to

this plan: 1st, by severing these muscles at their costal attachment I do not believe one can make a block dissection beginning with the axilla; certainly Murphy did not, according to the description of his operation in "Murphy's Clinics;" 2nd, the function of the muscles is sacrificed.

A sketch of the technique in the operation for carcinoma of the breast may at least emphasize some of the details of extra fascial dissection of the axilla. I sometimes use the Meyer incision but oftener that of Jackson. Any one of the standard incisions may be used, provided the operator extends it far enough outward on the arm to get a good exposure of the pectoralis major and the axilla, and sufficiently far below to reach the amount of deep fascia to be sacrificed over the lower thoracic and upper abdominal walls; and, further, provided that the part of the incision that encircles the tumor should be $2\frac{1}{2}$ inches (preferably 3 inches) from the border of the mass at its nearest point. The outer skin flap is dissected back well beyond the border of the latissimus dorsi. Make an incision through the deep fascia on the dorsal surface of this muscle, parallel to and $1\frac{1}{2}$ inches or more from its outer border and reaching from its tendon to the angle of the scapula. By sharp dissection, free this fascia from the outer border and anterior surface of the latissimus dorsi and from the outer border of the subscapularis, until the subscapular vessels and the accompanying long subscapular nerve are exposed and cleared for the greater part of their course. Put a hot saline towel underneath this fascial flap. Now undermine the inner skin flap just enough to expose the outer part of the pectoralis major up to the clavicle. Put a hot saline towel under this flap. Divide the pectoralis major just internal to the course of the axillary vessels, free it from the clavicle and turn it inward with the towel between it and the skin flap.

The fascia over the coraco-brachialis is continuous with the clavi-pectoral fascia which encloses the pectoralis minor. Make an incision in this fascia external to the axillary vessels over the line of the coraco-brachialis and extending from the lower border of the axilla on up through the tendon of the pectoralis minor and the costo-coracoid membrane to the clavicle. Dissect this fascial flap with the pectoralis minor inward, clearing the axillary ves-

sels and the brachial plexus, tying and cutting the smaller branches after clamping them distally. As the axillary vessels and brachial plexus are now cleaned and as the subscapular vessels and the long subscapular nerve have been freed, the extra fascial dissection of the axilla is continued by getting under the subscapular fascia and dissecting it inward, carrying everything with it.

Upon reaching the serratus magnus muscle, continue the dissection by clearing its fascia and the pectoralis minor from the thoracic wall until you reach the pectoralis major, being careful not to injure the long thoracic nerve. Now free the fascia from the posterior surface of the pectoralis major, beginning at its upper border. After reaching and clearing the lower border of the muscle, cover the axilla and shoulder with hot saline towels and turn the pectoralis major outward. Now rapidly undermine the inner skin flap and the lower part of the outer flap to the extent needed. Then, while an assistant holds the pectoralis major on tension, rapidly dissect, from above downward, the fascia from its anterior surface and the sternum, thus freeing the tumor mass except where it is still attached to the fascia over the lower part of the anterior thoracic wall. Continue the dissection until this fascia is freed as far as indicated by the nature of the case and sever it. After the necessary ligatures for controlling bleeding are tied, the pectoralis major muscle is stitched to its tendon and the adjacent fascia with mattress sutures so placed that the cut edges are turned backward against and internal to the vessels.

In conclusion, let me beg that this paper be not considered as exploiting my technique. It was written to discuss and to try to emphasize the value of extra fascial dissection of the axilla and the importance of making some provision in the nature of the operation for the future comfort of the patients. I hold no brief for the use of the pectoral muscle for the latter purpose. I simply believe that something should be done along this line. I may, later, be using a part of the subscapularis muscle, or I may resort to transplanting fascia or fat. I shall at least continue to make provision of some kind for the future of these cases unless I meet with facts that prove the course wrong.

405 North Allen Avenue.

DISCUSSION.

Dr. H. E. Jones, Roanoke, Va.—Mr. President, all of us know that the great surgeons of Richmond,

Rochester and some of the larger cities in the country have heard what we heard last night in regard to cancer of the breast and so on, and what we have heard today; from that we ought to be pretty well posted on the subject of cancer of the breast. The technique is all we care about; a great many of us are acquainted with that very well, and have some idea of what we can do with it ourselves, frequently. I believe the time will come when the surgeon will not have opportunity to do the radical operations of the breast, provided the public is instructed so that every woman who has a small tumor of the breast will seek aid for the purpose of diagnosis for relief, and it comes under the head of making an early diagnosis.

We were told last night by Dr. Horsley that it was very dangerous, indeed, for us to make an incision and send a sample to the laboratory and wait three, four or five days before the case is operated on. That diagnosis can be made without an operation. There are not many doctors doing it, but it is being done, and all you have to do is to get a sample of the patient's blood and put it on a piece of blotting paper, send it to the laboratory that is doing that kind of work, and as soon as you get it by return mail you can proceed. It is done by the utilization of the different forces of the different tissues; that is, it is called the electrone diagnosis. It has been found out that, for instance, with a tumor, tuberculoma, or one of cancer, each one has a special force; that is, it gives off a force that has a certain way of being indexed, certain vibrio, and they have found out and made delicate instruments to detect these forces and diagnose one from the other; and it can be done without making an incision of the breast or any injury whatever.

Dr. Horsley, Richmond, Va.—Mr. President, I was very much interested in the discussion. I try to keep up with laboratory work in a general way, and the biological treatment of cancer has been unsatisfactory. True, as Dr. Jones said, in some cases we do find reaction in the blood. Dr. Crile some years ago was quite enthusiastic about it. The reactions are very difficult to get. He found, however, that a good many other diseases had somewhat the same reaction, so it wasn't entirely reliable. Biological treatment of cancer has been carried on all over the world. Two methods have been found, one is by producing serum, using the serum; and the other by the vaccine method of attenuating the cancer cells without actually destroying them, and injecting these cells. I think Dr. Weil, of New York, has made the most satisfactory review of these cases, and his articles are quite extensive. He comes to the conclusion that the biological treatment is unsatisfactory, and there is no case of real cure from serum, and but one or two cases of cure and several cases improved from the vaccine. The real reason of that seems to be, it is almost impossible to get specific antibody in case of any particular organ or class of cells. You can manufacture hemolytic serum for special tissue that will act in vitro but not in the body. For instance, you can get serum that will digest the crystalline lens of animals perfectly, but when you put it in the animal there is such a delicate reaction and so much of this is taken up by blood and the other tissues that, before it reaches the crystalline lens, there isn't any left; you would have to use so much of this material to affect the lens that the patient would be killed before the lens was affected. It is the same way with the liver. Dr. Beebe several years ago claimed he had a specific antibody prepared for

the liver or kidney, but no one has been able to do that.

Along the line of technique, all of us who know of Dr. Henson's excellent work will appreciate his dissection. He carries out the real principle of operation for cancer, but I must take issue with him in regard to implantation of the muscle. It isn't usual to have recurrence in muscles, but cases do occur, and the cause is this: the lymphatics run in the fascia between the major and minor muscles and the fascia penetrates these muscles.

The next objection is, it appears to be unnecessary. I do not recall, in a total of about 60 or 70 operations—all of which I have not records of, but I have records of most—a single case of permanent edema of the arm that wasn't accompanied by recurrence. We do some time have transient edema; I do not think that it is due to contraction on the vein, but to interference with the lymphatics, and if there is temporary edema it soon subsides and it is not due to the pressure on the vein.

I would like to hear from Dr. Broders along this line.

Dr. A. C. Broders, Rochester, Minn.—Mr. President, and Members. In case of cancer of the breast, it is very unwise to remove the breast without taking off the muscle because, as Dr. Horsley says, the lymphatics invade the muscle, and if you leave the muscle there you will leave cancer, or a route for it.

In regard to the serum diagnosis of cancer and serum treatment of cancer, I do not much believe in it. In Los Angeles I was talking to a man some time ago, who has some ideas that the time will come when we will be able to diagnose cancer by the blood. We may get some results from it by serum treatment, but at present I think we had better rely on the cells as we see them under the microscope or a good description of the cancer, rather than depend on blood examinations. There has been much work done along that line in the Mayo Clinic by a female physician. She has been working on goats' and cats' blood and all animals' blood. She has cells of all descriptions and all sizes and I believe at this time she is not any farther advanced than she was two or three years ago. She is doing some very interesting work though. I think so far she has been able to accomplish nothing though her studies are very interesting; she brings them and shows them to me and every few days she will have something interesting to show, but I always believe in sticking to the conservative side and not letting your imagination run away with you. A person can do experimental work, but to do good experimental work, he must be very enthusiastic: as Dr. McCarthy always tells his students, the pendulum always swings too far and then back. As a test of that he will take a pair of scales and he weighs something and the student weighs a specimen, and the first thing he did was to put a weight over-balancing it and then it would come back. Experimental people have to exaggerate things to make you grasp the ideas, but then they have to come back, and I believe that as time goes on we may learn something more about the diagnosis of cancer from examination of the blood. Dr. Bunting, of Madison, and Dr. Yates, of Milwaukee, have done a great deal in the diagnosis of Hodgkin's disease. They first isolated the bacilli and at one time they thought that was the specific organism of Hodgkin's disease, but as they keep studying they find it has been isolated in other conditions; in fact, the pathologists in the Mayo Clinic found them in glands in the neck, take them out in operations,

and they have been isolated in other portions of the body. Nevertheless, all those things we have to pay attention to because in that way we may pick up something. As far as Hodgkin's disease is concerned, we believe it is related to lymphosarcoma. Some cases we call Hodgkin's disease and others lymphosarcoma. Maybe in one case you get a picture typically lymphosarcoma and in the same case the other. When you get a case of that kind you can say it is a lymphoid condition and let it go at that.

I have enjoyed this discussion very much and especially Dr. Horsley's paper and Dr. Henson's paper, and I would be glad to hear from Dr. Jones in regard to diagnosing cancer by the blood. I thank you.

Dr. H. E. Jones.—What I had to say was—the impression was Dr. Horsley thought that this was biological. It is not that. And it is not microscopic work, that is carried out for verification. This other work is so much more reformed than microscopic work that there is no comparison. As I stated, the recognition is made by the physical forces just on the same principle as wireless telegraphy—a man at one station recognizes what one says at another station. It is done by the physical forces and by the vibratory effect.

The President.—Is there any further discussion on this paper? If, not, we will pass on to the next paper.

Dr. J. W. Henson, (closing discussion).—With reference to the early diagnosis referred to by Dr. Jones, I purposely did not embody it in my paper as it is too big a subject in itself. You will remember I prefaced the paper by saying we would save more lives if we knew more about cancer in the early stages. This question of early recognition is not easy. It is extremely difficult. There are several factors and I will not attempt to take the time to discuss all the ramifications of it. One of the most serious of them, besides the fact of the patients themselves concealing the fact that they have a tumor of the breast, is the ignorance or neglect on the part of the doctor to whom the patient appeals. I just want to mention that—I will not take time to go into it. That is one of the most serious things connected with the question. I hope the time will come when we can recognize cancer by some biological test. I do not believe laboratory methods are successful yet; they may be, and I hope they will be.

As to providing against swelling of the arm in the removal of the breast: I feel very strongly on that. When you take the statistics of two great men like Bryant, of London, who, in over 40 years, had seen one recurrence in the muscle after radical operations, and Murphy who had never seen one, it makes one pause and consider if it is not worth while to take the infinitesimal chance of recurrence rather than the 33⅓ per cent. of a swelled and painful arm.

Dr. Horsley made another point that in most cases there is no swelling of the arm. I am bound to differ with him on that. I have seen them. My method may not be as good as his; I do not know. I have seen them around me, where operated upon by other surgeons of unquestioned ability. A lady a few blocks from me is typical of this point. Her arm is almost useless and probably will be the rest of her life, and when we try to go back behind statistics from such men as Greenough, of the Massachusetts General Hospital, we must admit those statistics should count for a great deal. I am

not here to discuss the question of whether or not pressure on the vein or the removal of the lymphatic glands will cause the swelling. The facts seem to be that in the hands of those who have put muscles in the axilla to cover the nerves and vessels the results are good in that this swelling does not follow.

Now it makes no difference whether the original cause is by contraction of the fibrous tissue on the vein or what not, if the placing of some tissue on top prevents a recurrence, then by all means do it.

Some of you, I know, will remember the fact that a Greek surgeon, Kondoleon, has an operation for lymphedema.

His operation applies where for any reason there is a blocking of the superficial lymphatic chain in an extremity. The principle of the operation is based on the fact that there is a series of lymphatics between the superficial and deep fascia and a series of lymphatics beneath the deep fascia, with no communication between the two. His operation is to make a long incision down to the deep fascia, take out a strip of the deep fascia or tuck the strip down between muscles, thus establishing a communication between the superficial set of lymphatics and the deep set, so the latter can take up the duty of drainage of the parts needing drainage.

This operation has proven effective according to Kondoleon's report.

In doing the radical operation for cancer of the breast the operation is particularly to remove the deep fascia, that is one of the essentials of the operation. In doing this you open up a communication between the superficial set of lymphatics and the deep set. You really do Kondoleon's operation when removing the breast so when the swelling occurs it would seem not to be due to interference with lymphatic return, but interference with venous return.

However, this is not the point at issue in the present discussion so much as the fact that about one-third of the subjects of operation have the swelling of the arm as the operation is usually done, whereas when the axillary vessels are covered by muscle at the time of the operation they do not have swelling of the arm following the operation.

My point is to prevent this swelling.

If I find that some other structure than the pectoral muscle will answer as well, I will gladly use it, but by all means let's prevent this post-operative swelling of the upper extremity.

PARESIS.*

By W. C. ASHWORTH, M. D., Greensboro, N. C.
Medical Director, Glenwood Park Sanitarium.

Paresis or general paralysis of the insane is now recognized as a syphilitic disease, especially since the *Spirocheta pallida* has been found in the brains of paretics by Noguchi and Moore, Foerster and Wile.

Collins says that in general paralysis the destructive action of the causative organism "is expended largely on the parenchyma or ganglion cells of the cortex of the brain. Any part of the nervous system may, however, be

subject to its ravages, but the symptoms of the disease are always finally and conspicuously cerebral."

Clark says: "In paresis, there is a primary parenchymatous encephalitis with secondary changes in the meninges, a perivascular cell infiltration with plasma cell and leucocytes, a proliferation of neuroglia cells and a diminution in the number of pyramidal cells of the cortex, and later atrophic changes in the cells of the basal ganglia-medulla-spinal cord and cerebellum. There is a real atrophy of the brain cortex which accounts for the permanence and severity of the symptoms and the comparative ineffectiveness of even the most approved methods of treatment."

In the diagnosis of paresis, the most important early symptoms are:

1. Physical:—Loss of pupil's reaction to light and change in outline of pupil, tremor of lips tongue and hands, alteration in tendon jerks, slight paresthesias, slurring or dropping of words in speech, disturbed co-ordination in purposeful movement, especially in writing.

2. Mental:—Loss of memory, nervousness, and alteration of personality or "change in disposition."

A Wassermann test of the blood and of the spinal fluid, and other tests of the spinal fluid are necessary in diagnosis.

The typical reactions in paresis are:

Wassermann in blood positive.

Wassermann in cerebrospinal fluid positive,—

Positive in about 85 per cent with 0.2 c.c. fluid; positive in 100 per cent with larger quantities of fluid.

Globulin reaction in spinal fluid positive (95 to 100 per cent.).

Lymphocytosis of spinal fluid.

Gold reaction test of spinal fluid, typical parietic curve.

Remissions are usual in paresis, especially in the early stages.

Paresis has been regarded as an incurable disease, and is still so regarded in most cases, unless taken in the very early stages.

Collins says: "It is a fatal disease. Once it is fully developed it is subject neither to amelioration nor to interruption. Early and vigorous treatment of syphilis before the organisms have made their onslaught on the parenchyma of the central nervous system has

*Read before the Tri-State Medical Association of the Carolinas and Virginia, at Charleston, S. C., February 20-21, 1918.

wrought a change in the clinical display of the disease. The hope is justifiable with our enhanced capacity to deal with syphilis based on a profounder knowledge of the principles or laws which govern the life history of the spirochetes and their susceptibility to destruction by arsenic, that finally we may be able, first, to prevent general paresis, and failing in this, to cure it. Its prevention is synonymous with the prevention and adequate treatment of syphilis. There is no encouragement from experience recent or remote to justify the hope that we shall be able to cure general paresis until such time when we shall recognize the disease much earlier than we do now. We must thwart the preparations that the spirochetes make in the nervous system soon after infection, and we must annihilate them in their early skirmishes."

Swift says: "The best treatment of brain gummata, tabes and paresis will always be their prevention. * * *

"It goes without saying that the best preventive of syphilis of the central nervous system is the prophylaxis of syphilis, but this problem is far from solved. Next in importance is the proper treatment of syphilis in the early stages. It should be emphasized that no case should be released from treatment until the cerebrospinal fluid has been shown to be normal, insofar as pleocytosis and Wassermann reaction are concerned."

The form of treatment at present advocated as most hopeful in paresis is the intraspinal injection of salvarsanized serum.

The two technics most used are those of Swift and Ellis, and Ogilvie.

The Swift-Ellis technic, as described in their article in *Archives of Internal Medicine*, 1913, is as follows:

"One hour after the intravenous injection of salvarsan 40 c.c. of blood is withdrawn directly into bottle-shaped centrifuge tubes, and allowed to coagulate, after which it is centrifugalized.

"The following day 12 c.c. of serum is pipetted off and diluted with 18 c.c. of normal saline. This 40 per cent. serum is then heated at 56° C. for one-half hour. After lumbar puncture the cerebrospinal fluid is withdrawn until the pressure is reduced to 30 mm. cerebrospinal fluid pressure. The barrel of a 20 c.c. Luer syringe (which has a capacity of about 30 c.c.),

is connected to the needle by means of a rubber tube about 40 cm. long. The tubing is then allowed to fill with cerebrospinal fluid, so that no air will be injected. The serum is then poured into the syringe and allowed to flow slowly into the subarachnoid space by means of gravity. At times it is necessary to insert the plunger of the syringe to inject the last 5 c.c. of fluid. It is important that the larger part of the serum should be injected by gravity and if the rubber tubing is not more than 40 cm. long the pressure cannot be higher than 400 mm. Usually the serum flows in easily under even a lower pressure."

Slight modifications of this technic have been made. Some authorities withdraw the blood in less than an hour (30 to 45 minutes) after the initial dose of salvarsan. In some cases the strength of the serum used is increased to 50 or 60 per cent. instead of 40 per cent. Swift and Ellis say this increase should be made when patients do not show the usual reactions.

Dr. Ogilvie has designed another method for the preparation of the salvarsanized serum *in vitro*, by which the exact dose of salvarsan used may be measured. This method is as follows:

About 50 c.c. of blood is withdrawn and centrifuged. When the serum is perfectly clear, 15 c.c. is taken and the amount of salvarsan to be given added. The salvarsan is prepared as for intravenous treatment in such strength that each 40 c.c. of the solution will contain 0.1 gm. of the drug, and each cubic centimeter 2.5 mg. Although Ogilvie has used doses up to 4.0 mg. of salvarsan, he prefers smaller doses—not over 1.0 mg. For repeated use, he says, "0.25 mg. to 0.5 mg. is the safest and most effectual dose to employ." Larger doses are apt to produce too severe reactions. The blood serum and salvarsan solution should be at the same temperature when the two are mixed. "The serum is then gently agitated to thoroughly mix the two and is placed in a thermostat at 37° C. for forty-five minutes. From this it is placed in a thermostat at 56° C. for thirty minutes." After making the spinal puncture, the serum is introduced from the syringe by gravity.

Results with this form of treatment have not been so hopeful in paresis as in either cerebrospinal syphilis or tabes. Marked improvement has been noted in some paretics, espe-

cially in the earlier stages of the disease, and the method is regarded by many as deserving more extended trial in paresis.

In regard to the intraspinal treatment, Riggs and Hammer say: "We believe that, by intraspinal medication, remissions are greatly increased in frequency; that in early paresis, marked improvement may occur with a possible arrest of symptoms." To be effective, they say treatment must be early and persistent. They approve both the Swift and Ellis technique, which they have used chiefly, also Ogilvie's, and speak of Wardner's cerebral puncture, which they have not tried, as perhaps the best method in cases of paresis of long standing.

Fordyce says of intraspinal treatment in paresis: "While a promise of cure cannot be held out in cases which are clinically developed, the treatment is of value in inducing remissions, making the patients socially possible and amenable to home care, and in a few cases restoring them, partially at least, to economic efficiency. If the diagnosis of paresis can be established through the colloidal gold reaction, when the infection is in its incipency, we may be justified perhaps in speaking of a cure."

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THE MANAGEMENT OF CONSTIPATION AMONG SCHOOL GIRLS.*

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Constipation should be of the greatest interest to every practicing physician because there is no clinical symptom more frequently encountered in the practice of medicine. The fact that it is a most commonplace affection, is obstinate in character, and easily relieved temporarily, makes it a matter of indifference to the general practitioner and permits him to resort to the easiest means at his disposal—pernicious use of purgative drugs. We know that constipation is but a symptomatic expression of some underlying disorder and our main line of treatment must be directed not to symptomatic relief but to the removal of the cause. In this paper, I wish to treat of my subject not as a mere symptom but as a distinct affection, and my remarks will deal more specifically with the condition as I have observed it in my clinical work among school girls.

It would be pertinent, however, to touch first upon the physiology of those forces which bring about the normal passage of the feces through the intestinal tract. The walls of the intestines are arranged in two layers, an outer longitudinal, and an inner circular coat, between which are situated the nerve plexuses of Auerbach and Meissner. The contents of the bowels are propelled onward by contractions in these muscular coats, the contractions giving to the intestines a wave-like motion, or peristaltic movement. The production of peristalsis is brought about by several factors, the main one being its intrinsic nervous control. The sympathetic fibers are chiefly concerned but impulses, direct or reflex, from the central nervous system are also largely responsible. According to Howell, "The physiological center for defecation probably lies in the lumbar cord. This center is probably provided with connections with the centers of the cerebrum through which the act may be controlled by voluntary impulses, and by various psychical states, the effect of emotion upon defecation being a matter of common knowledge."

The nervous element in peristalsis is by no means sufficient in itself, but is aided very pow-

erfully by local stimulation, the chemical and mechanical irritation of the intestinal walls. This irritation is naturally caused by the presence in the bowels of bulky substances which, acting as foreign bodies stimulate the musculature to activity. Attention, therefore, should be directed to those foods which contain the largest proportion of indigestible material as well as those elements necessary to nourish the body.

Solidifying of the intestinal contents does not take place until the sigmoid flexure of the colon is reached, eighteen or nineteen hours after the ingestion of food. The contents of the stomach pass through the pyloric valve in a fluid condition and pass thus through the small intestine, water being absorbed in large quantities from the mass as it passes along. However, the intestinal juices compensate for this loss in water so that when the ileo-cecal valve is reached the mass that passes through it is still in a fluid condition. The passage from now on becomes slower in order that absorption may be facilitated, the length of time for the passage from the ileac colon to the rectum being approximately about seven to eight hours, the contents becoming progressively less fluid as it passes along.

The act of defecation is accomplished by the united aid of the abdominal muscles and the diaphragm, and, normally, the rectum from the splenic flexure to the anal orifice is completely emptied.

The causes of Constipation may be either general or local. Among the general causes may be written: sedentary habits, chronic diseases, such as those of the liver, stomach, intestines and kidneys; nervous disorders, neurasthenia, hysteria, etc.; errors in diet; and drugs such as lead, opium, etc. Heredity is thought to play some part as a factor, but we are inclined to doubt now its influence but ascribe this factor more to unformed habits in childhood than to hereditary tendencies. Of the local causes: obstruction from within or without; muscular weakness, or atony from overdistention, obesity, disregard of the desire to evacuate; drugs and colonic inflammations.

Leaving here the general subject of constipation and not going into the details of symptoms, diagnosis or sequelae, I will hasten at once to the more specific discussion of constipation among normally healthy school girls. I will discuss together the cause and the treat-

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ment which I have found most successful among them.

From my observation of this condition among normally healthy school girls. I am right well convinced by this time that this habit of constipation, which unfortunately is very prevalent among them, is entirely preventable and due, in the main, to five of the above named causes:

1. Dietary indiscretions;
2. Insufficient exercise;
3. Insufficient ingestion of fluids;
4. Lack of regularity in defecation;
5. Cathartic drugs.

In the case of one or all of the first four it is nearly always possible to draw from the patient a confession of irregularity, but in the matter of drugs, catharsis is looked upon as a necessary evil and one not in the power of the patient to prevent. Girls, however, are very amenable to suggestion, and in all my treatment I make free and full use of that fact, including in every treatment suggestions covering all five points named.

1. Taking up first errors in diet and its management.

In the majority of girls coming to boarding school, the increase in weight during the school year is from one to thirty pounds. This is due to the enormous ingestion of carbohydrate in the form of sweets, pickles, crackers and other ready-to-eat foods so temptingly and cheaply displayed, and looked upon by them as a necessary adjunct to the monotony of school fare. Sugars and starches, being readily assimilated and lacking in residue, naturally tend, as a diet, to constipate by their failure to provide sufficient bulk for the intestinal musculature to contract upon. It is absolutely necessary in order to achieve results and to get co-operation, to call the patient's attention to this and to explain the difference between the action of carbohydrates and that of the so-called "fodder vegetables" on the intestinal tract. It is my custom to write out a list of those foods to eat and those to avoid, never trusting to the memory. Just mentioning in passing, those foods rich in cellulose: we have cabbage, tomatoes, onions, spinach, corn, string beans, lettuce, cucumbers, asparagus, wheat and rye bread, and the coarser cereals, oatmeal, corn meal and hominy. Bran is also a valuable help. I have been successful wherever I could persuade the patient to use

it. Away from her mother and home, where it could be prepared in a palatable manner, this is not always easy. However, whenever possible, it should be used as an addition to cereals, breads, etc., and not alone; although it could be used alone and mixed in water, but my experience does not lead me to advocate this method. The best fruits to advise are apples—raw or cooked—peaches, plums, cranberries, grapes, prunes, dates, figs, all forms of stewed fruits, dried fruits and preserves. Some fruit should be taken at each meal if possible. I instruct every patient to eat a piece of fruit before retiring at night. If there is any one hour in the twenty-four when it would be more advantageous to eat fruit for this purpose, especially for those who have acquired the laxative habit, it is at this hour, as it tends to produce a psychic effect which, if persisted in, will eventually help the patient to eliminate drugs.

Lists of food to be avoided, I give in a general way, but do not particularly lay any stress on different articles, for it is not part of my plan to allow girls to concentrate on avoiding any common foods. These in a general way, are excess of eggs or milk, sweets, candies, pastries, nuts, cheese, crackers, new white bread, hot breads of any sort, toast, macaroni, rich stews and gravies, rich dishes, most chafing dish products, condiments, spices, pepper, mustard, etc.; soda fountain drinks, etc., just those things that the girl usually has to go out of her way to obtain. I have never found it necessary to cut down tea or coffee unless it was taken in excess, or unless the patient herself felt that it was doing her harm.

2. The lack of exercise contributes in a large extent to constipation among school girls. They have not the time to give to exercise. They have gymnasium twice a week it is true, which goes a long way towards hardening muscles and giving a general tone to the body, stimulating circulation and invigorating the system generally, but the other five days in the week are usually mental grind and muscular inactivity. Many girls, if allowed to do so, lead almost sedentary lives, for the energy required to meet classes isn't strenuous. In many cases I have gotten good results by persuading the girl to put down upon her daily schedule a half hour walk and personally direct the distance to be covered.

Wherever the girl has felt in herself the beneficial results of this course, it is not hard to get her to extend the time and distance. Few of the real sports that are recommended to give such good results can be obtained in the average boarding school. Musser suggests horse-back riding, mountain climbing, swimming, rowing, golf. These are out of the question in many schools. "Gym" work, tennis and walking are the most available, and good results can be obtained from them if taken up in a systematic way. "Setting-up" exercises are highly recommended by some authorities and special exercises are outlined for constipation. These taken regularly and systematically are no doubt of great value but I have found that they call for more energy and time and persistence than any normally healthy school girl is willing to give. Where a girl could take these at home under the supervision of her mother, the results ought to be good as the exercises are specially purposed to strengthen the abdominal muscles.

3. Insufficient ingestion of fluids: It is a matter of common knowledge to all of us that people as a general rule do not drink enough water. It is probably one of the most common items in treatment of all our cases, no matter what the disease. Girls are not naturally water drinkers. I have never yet discussed the subject of water with patients suffering with constipation that I did not obtain the confession, "I know I do not drink enough water." One would wonder why, when they knew it, they do not apply the remedy. They know it with their heads but have never been taught to assimilate the knowledge in a practical way. In order to help them get this idea firmly fixed as something they can use in a practical way, I have a distinct line of talk that I give them on this subject. I usually put my suggestions in the form of questions, as it sets them to thinking of the subject and gains their more concentrated attention. Moreover, school girls are accustomed to questions and they are quite at home when any are fired at them. To put my method briefly, it is something like this: "How much water does the body lose daily from perspiration?" I supply the answer: "About two pints," which amazes them.

How much from respiration? Two pints, approximately. How much by way of the kidneys? Approximately two pints, probably,

for the average school girl. Reduce this to glasses, which is a term one may handle familiarly—it is six pints, or twelve glasses, daily loss of fluid from the body. If, then, the body loses twelve glasses of water a day, how are you going to make up this loss? In the fluid part of foods at meal times one probably gets four glasses of water or two pints. The rest of this must be made up in some sort of fluids, or in plain water. When this truth goes home, I have had little trouble with the water question. One of my Camp Fire girls, who was a chronic sufferer from constipation, was induced to earn a Camp Fire honor by drinking nine glasses of water daily between meals for two months. During the two months she experienced no trouble whatever, but at the end of the allotted time appeared at my office with the old request for a laxative. It had been a week since the honor had been won and since that time she had neglected to drink her daily portion. The constipation had started up again and she was duly impressed with the relation between lack of water and constipation and assured me that she hoped never to let it happen again.

4. Irregularity: Normally, there should be two evacuations a day, says Dr. Reid. That many perfectly healthy people live quite comfortably on one evacuation daily, and many others know no discomfort, having one movement two or even three days apart, is common knowledge. The question as to whether or not a person is constipated is, therefore, an individual one. It, however, is a safe rule to follow, allowing a person one free bowel movement a day. The most suitable and convenient time for the daily evacuation is immediately after breakfast. With some people the act of rising to the vertical position in the morning is sufficient to arouse peristalsis, but the ingestion of food and particularly of hot fluids, is more likely to do the work.

Bearing this in mind, says Dr. Musser, "The patient should be instructed to make an effort systematically to have bowel movement at a fixed hour each morning. Whether or not the desire for bowel movement is present at this time is a matter of little moment; the effort should be made just the same. If this course is patiently persisted in, the involuntary muscles of the lower bowel will ultimately become sufficiently trained so that at about the given hour contractions will begin and the desire to

defecate will occur." This training the nerves by a definite act of the will is a possibility which is very hard for the patient to take in. They continually shirk this duty and have to be constantly reminded that this is an essential part of the treatment. Habit formation should be begun in childhood. I believe that instilling the proper mental attitude into the patient in regard to this matter is the only real solution to the problem. It is certainly among the hardest problems that we are called upon to solve—that of training the will.

5. Cathartic drugs: There are many different kinds of drug habits. It is needless for me to enumerate them here. But we hear little of a habit which is analogous to them, one which I feel to be just as pernicious in its way. It is the laxative habit and the calomel habit. I will venture to say that few school girls leave home without pills or capsules, or tablets of some kind or other in their trunks. I have run across dozens of Carter's and all other kinds of liver pills, Lydia Pinkham's pink pills, compound cathartic pills, and many others too numerous to mention, saying nothing of various kinds of salts, calomel, oil and suppositories.

The matter of drugs for constipation is a very serious problem. Chronic constipation should be managed without drugs, and, I believe, with patience and the most judicious management, it can be done. No drug should ever be placed in the girl-patient's hands for indiscriminate use. When this is done, it takes longer than ever to adjust the trouble. My plan is, first, to have a long talk with the patient, explaining the dangers of drugs as impressively as I can. I outline the entire treatment, explaining the significance of each point, assuring her of positive ultimate success if she will give her earnest co-operation, taking time to overcome her former bad habits in this line: being willing to keep at it persistently even though it takes years to overcome; and, finally, to report to me at regular intervals and always to come if she needs a laxative. Getting her to report on this matter enables me to note progress, gauge the dose myself or gauge the need of it, and to observe her mental attitude towards the whole subject.

Some girls think it is all because they are away from home, because at home they claim not to suffer in this way. It is an attitude which, whether truth underlies it or not—and

probably does, seeing that they have their mothers at home to remind them of such matters—I make every effort to overcome. If it is not overcome while at school, that is, the attitude that one must always live in one environment in order to insure good health, I feel that they are doomed to the laxative habit.

With patients who are so inured to the habit of laxatives and insist on the nightly dose, I have found greatest success in cascara evacuant given in increasing doses, beginning with three minims, t. i. d., increasing one drop daily until one good movement daily results. As soon as this occurs (and I instruct them not to go higher than fifteen drops without consulting me), they must turn and drop one drop daily, and finally drop it altogether. Some very obstinate cases have yielded to this method—of course, vigilantly carrying out all the other parts of the treatment at the same time.

I have found no use for suppositories, enemas or abdominal massage in treating young girl cases. It seems to me that these should have no place in any treatment given to them for this trouble. The girl's mind at this period of her growth is too readily attracted to her body as a result of adolescence and the less any treatment impresses her bodily functions on her mental vision, the better it is for her peace of mind.

In regard to the calomel habit, I am slowly arriving at the opinion that there is no place for calomel in the treatment of constipation among girls. But in untold numbers of cases to the young girl herself, calomel is indicated, and for that reason, against my will, I do give an enormous quantity of it. Some girls demand it as often as every six weeks and I had one girl whose custom was every month. "Bilious" is an overworked term, comprehended by few, satisfactory to all; it always includes constipation. A bilious girl never comes to ask advice; she comes for calomel. If refused and, say, salts is given, she returns dissatisfied in a week for the calomel.

We are told by competent internists that about fifty per cent. of civilized people employ some artificial aid to defecation. What is the trouble? Is it the ignorance of mothers and the lack of training in childhood? Is it the gullibility of the human mind and the ease with which drugs may be purchased? Or is it the medical profession that is to blame for placing these drugs in the hands of indiscrimi-

nating persons? Do these patients not often start the drug habit first under the hands of physicians? A mother told me recently that she gave her infant of twelve months an enema every day. The child had been under the care of a physician, but now was perfectly healthy except for a chronic constipation. In my practice I run against the patients of physicians from all over the state. Every student in the school must acknowledge a family physician, who may be written to in case of need. I see prescriptions and drugs which they have prescribed, I hear them quoted (or misquoted, most probably), almost daily, and I cannot help but feel that we are largely to blame for this state of affairs. How easy it is to sit down and write out a prescription: Cascara Sagrada, grs. v.; or Lapactics, No. 2, at bedtime, and how irksome it is to sit down and probe for the patient's point of view in order to change it and start afresh with hygienic rules and regulations that are simple enough for her to co-operate with. When a girl is hale and hearty, it is annoying to her to have to give time to keeping hygienic rules. Yet it is the only way I have been able to meet this problem with any success. It has taken in some instances one or two years to succeed, and it has meant discouragement often, and weariness to both doctor and patient, but when I have been able to hold my patient until she becomes, as she calls it, "established," and I have seen her mental attitude towards health matters change from a sickly one to a sane one, I have felt highly repaid and felt that all the work I have put into bringing her around to this newer viewpoint has been entirely worth while.

DISCUSSION.

Dr. Wm. L. Harris, Norfolk.—I enjoyed that paper very much, and I am glad to know that we have one school in the state considering that, because I have come across hundreds of cases of chronic constipation in young school girls, and many of them were contracted at schools. Of course, if we go back and take children from their infancy they have very little trouble until school age, when they begin to neglect themselves and use laxatives. The great trouble I find in treating constipation after they begin going to school is, they get up late at home, eat breakfast in a hurry and rush off to school. That is the same way at young ladies' schools. They do not have time to go to the closet and have proper evacuation each morning, and constipation is certainly a curse on children in school, as well as older people, and it is certainly due more to neglect and the abuse of the purgative. If every purgative was a horrible dose, I think we would have less constipation; but they have such delicious purgatives, and so attractive, that everybody seems to have the

idea that they must have it. It is astonishing to find how many people take a laxative every night and also recommend it to their children. I am certainly glad to see that the doctor is doing work at this school which is very much needed, and I hope other schools will adopt some of her ideas.

Dr. Brydon had no further remarks to make in closing.

ELECTROLYSIS IN THE REMOVAL OF WILD HAIRS FOLLOWING OLD TRACHOMA.

By J. HERBERT CLAIBORNE, M. D., F. A. C. S.,
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On October 1, 1918, C. presented himself for examination of his eyes. The following was found:

Swelling of lids, more marked in upper lids, intense spasm and photophobia. After some difficulty, the lids were separated and numerous superficial ulcers of the cornea were revealed, with the usual infiltration of the surrounding tissues.

The condition of the inner surface of the lids, both upper and lower, was such as is seen in cases of acute exacerbations of a sub-acute chronic trachoma that has suddenly lighted up and become acute. The vision was practically nil and the patient had to be led. Under appropriate treatment, the acute symptoms subsided in the course of two weeks and a typical chronic trachoma was revealed. The lid margins were greatly swollen and a marked entropion was present.

An operation was advised and, the patient consenting, the tarsus of both upper lids was removed by the Claiborne method. Prompt healing took place and the patient left the hospital in ten days. The condition was greatly improved but entropion persisted to a very annoying extent in the right upper lid and in the left upper lid margin there were numerous lashes that still rubbed against the cornea. It was necessary to remove the offending lashes and the services of Mr. S. P. Gilmore, 104 E. 40th St., were sought with the most gratifying results. Mr. Gilmore, by means of the electric needle, removed all the offending lashes, the treatments extending over a period of two months, from six to ten hairs being removed at each sitting. The patient has returned to his work and the vision is 20/40 in each eye.

The operation and removal of the tarsus is indicated in old cases of trachoma in which the tarsus is thickened, heavy, and filled with scars. The pressure and the scratching upon the cornea by this structure is the cause of the keratitis and blurring of the eyes in old

cases of trachoma; in fact, it may be said that the destruction of the eye in trachoma does not begin until scar tissue has been formed in the tarsus or at least is commencing. The removal of the tarsus in such cases is the only remedy which can be used to stop the destruction of sight. The use of blue stone does not absorb the scars in the tarsus and has only the effect of destroying any granulations which may be present. This operation is known as the Kuhnt-Heiserath removal of the tarsus. The method of these observers is bloody and tedious; as performed with the instrument which I have invented for this purpose, it is practically bloodless and short. The operation from beginning to end can be done in fifteen minutes. The removal of the tarsus in such cases, so popular a number of years ago, is becoming less and less indicated by reason of the absence of old trachoma in this country, and that end has been achieved by the strict ordinances of the government against the admission of trachomatous immigrants.

Even after the operation has been successfully performed and the keratitis has been relieved, the scars on the cornea to some extent cleared and the sight improved, the lid is often in a condition of entropion or there are wild lashes present which grow towards the cornea, and sometimes the combination of these two conditions exists. The latter was true in the case referred to. Under such circumstances, it is necessary to keep the lashes from scratching on the cornea, otherwise the effect of the operation is lost. This can be done at times by the operation of canthotomy. At others, canthotomy is not sufficient, particularly when the hairs grow directly towards the eye ball. Then they have to be removed by electrolysis. Most eye surgeons, at least those of large experience, have employed electrolysis in such cases, but that, though a slight operation, requires considerable skill and constant practice for its successful performance and many surgeons do not have enough experience to justify them in attempting it. I have done it a great many times in my life and in many cases successfully. At other times it has not been satisfactory.

At the suggestion of Dr. John B. Haden, I sent the patient mentioned herein to Mr. Gilmore, who possesses extraordinary skill in removal of hairs by electrolysis. Since then

I have ceased to perform this operation myself. I refer my patients to him. He is not a physician, but I see no reason why the skill which he possesses should not be utilized for those who suffer. In several cases he produced results which I could not have achieved.

The object of this note is to call attention to the value of electrolysis in the removal of wild hairs that grow towards the cornea and more particularly when they are associated with entropion following old trachoma; but I would like to emphasize the fact that unless the old tarsus has been removed antecedently, entropion will continue to develop and electrolysis will only be a means of temporary relief.

8 West Fortieth Street.

Practical Points in Current Medicine

Conducted by
PUBLICATION COMMITTEE,
Medical Society of Virginia.

Ophthalmology, Otolaryngology and Rhinalogy

Epistaxis.

Bleeding from the interior of the nose may be due to both local and constitutional causes. It is common between the ages of five and fourteen, rare in middle life, and in old age is usually the result of constitutional disease or local neoplasm. Except in malignancy, hemophilia, or arteriosclerosis is not ordinarily of serious import when properly managed. The point of bleeding in about 90 per cent. of all cases is in the anterior portion of the nasal septum.

Local causes are traumatism, acute rhinitis, atrophic rhinitis, ulceration of the septum, varicose veins in septal mucosa, presence of foreign bodies in nasal cavity, tubercular and syphilitic ulcerations, benign and malignant neoplasms.

Constitutional causes may be the acute febrile diseases; blood diseases, such as anemia, hemophilia, leukemia, purpura hemorrhagica, chlorosis, and chronic malaria; disease of the heart and blood vessels, Bright's disease and pulmonary emphysema; violent exertion; temporary sojourn in high altitudes; sudden suppression of the menses; diabetes.

The treatment is either or both local and

constitutional, depending upon the cause. The majority of cases are self-limited and need no treatment, this being especially true of attacks in the young and robust.

Prolonged hemorrhage, not due to constitutional disease or tumors, is usually amenable to intranasal applications of adrenalin and ice packs placed upon the nose. A small syringe full of ice-water may be injected into the nostril. Introduction of a tampon placed so external pressure by the finger on the side of the nose will hold it tightly against the septum is very effective in checking bleeding from the anterior septal vessels. Frequent and prolonged hemorrhage in this area should be met by destruction of the bleeding vessel with the galvano-cautery. When continued pressure becomes necessary a strip of gauze wet with a suitable astringent may be inserted in the nares and packed fairly tight; such packing ordinarily should not be left in longer than twenty-four hours.

Violent nasal hemorrhage, when due to constitutional causes, and not controlled by the above measures, requires a combination of post-nasal and antero-nasal plugging as a last resort. This should not be a very difficult procedure to a physician possessing average skill. This method of tamponing the nose and naso-pharynx produces great discomfort to the patient and because of the danger of its producing purulent otitis media should never be left in situ longer than twenty-four hours.

The administration of normal horse serum by hypodermatic injection increases the coagulability of the blood and is effective in conditions due to this deficiency in the quality of the blood. Treatment directed to the relief and cure of either the local or constitutional cause should not be overlooked, and resulting anemia from severe loss of blood should be overcome by suitable reconstructive medication.

GEO. J. TOMPKINS.

General Surgery

Principles in the Radical Operation for Oblique Inguinal Hernia.

Important at all times, this subject is peculiarly so now, on account of the question of providing for the physical fitness of men for

military service. The principles to be observed to get success in operating for oblique inguinal hernia are, (1) absolute observance of asepsis, (2) high ligation of the sac, (3) restoration of the integrity of the transversalis fascia, (4) the proper plastic work for making a satisfactory muscular and aponeurotic buttress over the inguinal canal, (5) the use of the proper suture material, and (6) thorough hemostasis before suturing.

Failure to execute some of these principles applies not only to men who try to do surgery when incompetent, but also occasionally to competent surgeons. I will not consume time and space discussing the question of men doing surgery who should not. The medical profession and the public are waking up regarding this subject. Unfortunately, for a while at least, some incompetent men will be trying to do surgery. Also, unfortunately, these incompetent men think the radical operation for inguinal hernia easy and safe. For them it is neither easy nor safe. Even if they should manage to observe the rest of the principles, it is practically impossible for them to put into effect the second and third principles, viz., isolation and high ligation of the sac and restoration of the integrity of the transversalis fascia. No one should attempt the radical operation for inguinal hernia who is not thoroughly familiar with the surgical anatomy of the inguinal canal. Very serious accidents may and do occur under such conditions. The bladder may be cut. The vas deferens may be cut. The external iliac artery or vein may be punctured with a needle. The deep epigastric artery may be injured.

I knew of a case not long ago where the femoral artery was cut in the search for the sac of the hernia. The omission most frequently made by the trained operator is not taking care of the third principle—restoring the integrity of the transversalis fascia. The hernial sac and its contents extending down the inguinal canal produce an expansion of the tubular process of the transversalis fascia surrounding the structures of the cord.

I grant that if the sac is ligated sufficiently high and the muscular and aponeurotic buttress be well made, a recurrence seldom happens.

Occasionally, however, there are recurrences and I believe some of them are due to failure to correct the expansion of the tube of trans-

versalis fascia, particularly its upper end (the internal abdominal ring). At least one stitch of chromic cat-gut should be placed in the upper end of this tube, thus narrowing the internal abdominal ring, taking care, of course, to avoid the deep epigastric artery. If the transversalis fascia forming the posterior wall of the inguinal canal feels loose, it is wise to take a few reefs in it with chromic cat-gut and make it tense.

Another oversight occurring occasionally in the work of good operators is the failure to remove large pads of fat sometimes found among the structures in the inguinal canal.

J. W. HENSON.

Internal Medicine

Laboratory Diagnosis of Renal Tuberculosis.

In the diagnosis of this condition, the results of laboratory examinations are of equal importance with the clinical history and the revelations of the cystoscope. However, a number of considerations enter into the question of a laboratory decision, for or against a positive diagnosis. For instance, as is well known, patients with recognized tuberculosis of the kidneys will, on different occasions, furnish widely varying specimens, some specimens at times containing much pus and easily demonstrable tubercle bacilli; others from the same patient will occasionally present absolutely no such evidence. This, as a matter of fact, is readily accounted for when the pathological process in the kidneys is considered, as findings of pus and tubercle bacilli can only be concomitant with the actual breaking down of tubercular tissues with liberation of the bacilli, and inasmuch as this is necessarily to a great extent, an intermittent process, it follows that specimens vary as to the evidence they may afford for the diagnosis of tubercular kidney. Repeated examinations of the urine are, therefore, frequently necessary. Further, the chances of finding the positive evidence of tuberculosis are enhanced when the total output of urine over a specified period of time is available for examination. The sedimentation of such larger quantities of urine by gravity, followed by further concentration in the high speed centrifuge, holds the best promise for success.

If methods referred to above fail to show the bacillus, we have resort to guinea pig inoculation, a procedure so almost infallible in its results and so reliable that it is scarcely

worth while to consider the rare and exceptional conditions, such as minute numbers of bacilli in injectable quantities of the specimen, that could possibly interfere with the specificity of the test. The only objection or criticism of this method of guinea pig inoculation is the length of time that must intervene before final conclusions may be drawn, a matter of a month to six weeks. To obviate this objection, methods have been adopted by which the time may be materially shortened. Injection and traumatism of the glands of the groin is practiced with excision in ten to twelve days, followed by histological study of the gland as suggested by Bloch. By this method results are not always absolutely conclusive, since we have found the same pig injected intraperitoneally to develop, at the same time, the disease within the abdomen when sections of gland tissue so treated gave normal or nearly normal histological appearances.

Treatment of the pig immediately before injection by the X-ray, using a Coolidge tube, with the purpose in view of so reducing its resistance that the bacilli can more rapidly produce the characteristic lesions, has logic to commend it and practical results to bear it out. The earlier published articles on the point suggested a dose which we have found excessive and consequently attended by too great and immediate a mortality from X-ray exposure. Unquestionably, the proper application of the X-ray is a distinct help, cutting the time at least in half, and to that extent meeting the only valid objection to this method as a means of diagnosing tuberculosis of the kidneys.

W. A. SHEPHERD.

Early Signs of Hyperthyroidism.

Disorders of the thyroid gland more or less profoundly affect the whole body. Disturbances, due to its hyperfunction, appear in the various systems and in the operation of the organs of the body. These disturbances are seen in the autonomic nervous system; in the cardiovascular system, in the general metabolic processes of the body, in the disturbances of other glands of internal secretion, in the brain, and in the gland itself. Now, it is very evident that the degree and scope of the manifestations of this sort, depend upon at least two important factors: first, the etiologic factor, and, second, the duration of the increasing action of the diseased thyroid. While it is

true that the etiology of thyroid disease is not thoroughly understood, it is becoming more and more evident that its hyperactivity, which is associated with this general symptomatology, is closely related to four groups of causes, namely: (1) chronic focal infections, as sinus, antral, alveolar, and tonsillar infections; (2) chronic pulmonary and genito-urinary and intestinal infections; (3) general infections, as syphilis, malaria, typhoid, influenza, rheumatic arthritis; (4) gross disease and disturbances of other organs of internal secretion, especially the ovaries.

In the last ten years, it has been demonstrated that the late goitre cases, with frank symptoms, are distinctly surgical problems, and such patients are relieved only by skilful surgical treatment. During this period, also, physicians have learned that many thyroid disorders, which appear to be advancing to the mature development of a goitre state, yield to medical treatment. This has been accomplished by two means: first, the early recognition of the hyperfunction symptoms; second, by a search for the removal of infection origins, and adequate and persistent medical care until irritative signs are removed.

Now, what are the usual early signs?

I. *Tachycardia* is one of the earliest and most constant signs of Graves' disease. In the heart, that organ which responds to physical and mental stimuli so quickly, one first obtains evidence of hyperthyroidism. Before evidence of struma, before evidence of eye signs, before evidence of metabolic or cerebral signs, a persistent tachycardia, without organic cardiac lesions or other reasonable explanations, should excite suspicion of incipient thyroid disease. It is a sort of rule with me to strongly suspect cases with persistent tachycardia of hyperthyroidism and in such circumstances to proceed at once to look for corroborative evidence in the gland and nervous system. The late signs of palpitation, cardiac dilatation, accidental murmurs and myocardial deficiencies bespeak advanced disease.

II. *Eye-Signs*, next in interest, show up rather early. There may be, however, only one, although several of these signs may appear. Look for: (1) widened lid-slits (Dalrymple's); (2) exophthalmus or protusion of eye balls; (3) delayed movement of upper lids when eye balls are directed downward (V. Graefe's); (4) insufficiency of convergence of eye balls

(Moebius'); (5) "dry eyes" and "glistening eyes;" (6) infrequent winking (Stellwag's).

III. *Struma*, or enlargement of the thyroid in the early stage, is often not demonstrable. Physicians have been depending too much, I fear, upon evidence of gross enlargement as a necessary factor in the hyperfunctionating of the gland. The symptoms may be plainly evident in heart and eye without apparent enlargement of the gland. However, with enlargement and signs elsewhere the diagnosis is but the more positive. This increase in the gland may involve one or both lobes; bruit may be elicited; a thrill may be felt.

IV. *Tremor* is an important symptom to be looked for. A large percentage of these cases show tremor. It is fine and rapid (7 to 10 oscillations per second). It is best obtained by getting the patient to extend the arms and hands. In the fingers, when held out rigidly and far apart, the tremor is observed and easily accentuated by any sudden or unexpected noise or excitement. In association with this the patient seems to be "keyed up;" under a tension with a state of unrest. The patient frequently complains of being under the ban of irritation and anxiety. Insomnia is common, also.

V. *Skin Signs*—*Profuse sweating* is common and, more or less, a constantly associated symptom. It may show locally; certain parts of the body sweat easily without the usual cause. The hair is scant and easily falls out, as seen in eye brows, scalp, axillae, pubic region. Often there is pigmentation about eye brows, nipples, axillae and genitals.

VI. *Emaciation*: Underweight, as related to height, is another interesting sign, although not an early sign always. The fires of combustion are increased in hyperthyroidism. The patient usually loses weight. Protein metabolism is greatly accentuated, showing in some cases toxic action. Carbohydrate burning is disturbed, as is shown by the appearance of glucose in the urine of these patients, which disappears when the patient's thyroid returns to normal.

Comment on Management: Diagnosis made *rest* and *isolation*, under well-ordered hospital environment, is necessary and important. Several months of rest and feeding may be needed after hospital treatment is ended. During this time diet should be carefully studied and prop-

erly balanced. The carbohydrates should be increased while the proteins should be diminished. The fats added, quickly make for increase of weight, which is an important factor. During this period of rest, every possible means should be used to discover the etiologic factor. Careful study of nasal, oral and aural status looking for chronic infection is important. Organotherapy, injections of quinine and urea hydrochlorid and other medical measures need have little place of importance in the treatment if early removal of exciting cause is accomplished and the body of patient carefully rested and nourished.

ALEXANDER G. BROWN, JR.

Reference: Barker: The Clinical Diagnosis of Internal Diseases.

Obstetrics

Pituitary Extract.

With the introduction of every new remedy of any real value, we will read the reports of wonderful results obtained by its use, while other reports will tell of dire and disastrous failures. Taking these widely separated conditions as reported by the two classes of observers, and sifting the enthusiasm from the one and the timidity from the other, we will in time get the true indications and contraindications of the agent. This has been the history of the recently introduced pituitary extract as used in obstetrical work.

When first introduced, I believed that the remedy could be used with benefit in almost any case of prolonged labor, provided there was no disproportion between the head and the pelvis, and that it was not simply used to save time for the obstetrician. I also believed that the then usual dose of 1 c.c. could be repeated every hour until labor was completed. In fact, I once wrote that "one dose would bring the head from a high forceps to a mid-forceps operation and, if the child was not delivered, the next dose would take the place of a low-forceps delivery."

This was and still is a fact in many cases, but in looking over my records I find I had many more lacerations of the cervix and perineum to repair than I did before I used the drug, and many more than I now have, when I have used this valuable agent in much smaller doses.

The pendulum has moved over to the "safety first" side of the swing, and I use from $\frac{1}{2}$ to $\frac{1}{4}$ c.c. instead of 1 c.c. I must have the head well engaged and the cervix completely di-

lated and be certain that the cause of the delay is *not a contracted outlet*. Even with these small doses some lacerations are more extensive than I am inclined to believe they would have been, had nature completed her work unassisted.

Pituitary extract is very useful after the completion of labor in those who have a history of post-partum hemorrhage, in those who have inertia, to make the uterus shut up and remain so until the ergot can get in its effect, in those who are physically weak or have worn themselves out during labor, and especially in the anemic women, where a small loss of blood will retard recovery and diminish lactation.

I find from my cases that the catheter has been unnecessary when the extract has been given during or after labor.

VIRGINIUS HARRISON.

Proceedings of Societies, Etc.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Reported by EMIL MAYER, M. D., New York, N. Y.

(Continued from page 61)

Some Clinical Observations on the Lingual Tonsil.

By GREENFIELD SLUDER, M. D., St. Louis.

The diagnosis of lingual tonsillitis is simple in acute follicular cases. Should it not assume the follicular markings, it is often overlooked, particularly when the mass is not enlarged. It is recognized under these conditions by its color alone. The mass may be much enlarged in acute or chronic cases, which is, of course, easily recognizable. Not so easily interpreted is an occasional small slightly reddened follicle. These are often the origin of the symptoms.

The prognosis for singers and speakers, according to the writer's experience, should be guarded. A lingual tonsil which easily becomes a disturbing factor, either from the work of singing or speaking or from infection, must be considered most seriously. He does not believe that the singing or speaking voice can be developed to any great extent under these conditions.

The treatment of lingual tonsillitis in the acute follicular stage is like that for the faucial tonsils under like conditions. For the sub-acute or chronic state, with or without enlargement, nothing has been so satisfactory as applications of a small amount of silver nitrate saturated in fifty per cent. glycerin. Salicylic acid saturated in ninety-five per cent. alcohol

is helpful, and does not taste so unpleasant. These may be made daily or as seldom as ten days. For the enlargement, galvanocautery destruction has seemed best. Hemorrhage following surgery of the lingual tonsil is more difficult to manage than any in the upper air passages.

Many of these observations have been made and recorded in more or less this form. The association of lingual tonsillitis with thyroid gland disturbance and with glossodynia, he believes, has not hitherto been recorded.

It is his interpretation of clinical laryngology that the lingual tonsil plays a major role.

DISCUSSION.

Dr. Albert G. Getchell, Worcester: I am very much interested and impressed with this account of the lingual tonsil. The disease undoubtedly has certain lesions that we probably do not appreciate. There is no question that there is definiteness about it and its lesion. I would like to call attention to three points which have impressed themselves upon my experience: first, its relation to the nervous system; second, to hemorrhage; and third, to cough.

There is no question but that trouble in this region would cause cough, but still I think that continued cough should not be attributed to such a lesion without a most thorough examination of the lungs. Simple examination of the sputum without any examination of the lungs whatever, will often show the real cause of the trouble.

Dr. Henry L. Swain, New Haven: I have often seen how many times the sources of little lesions and the inconveniences that patients have suffered from could be attributed to and explained by conditions found in the lingual tonsil. The circulation of the lingual tonsil is peculiar—or, rather, its relation to the veins of the base of the neck is peculiar. The veins from the surface of the tongue gather together into certain large vessels deep down in front and underneath the lingual tonsil. The sudden occurrence of a feeling of fullness is perfectly explicable when you consider these venous branches which gather together underneath the lingual tonsil.

It is equally a fact that emotional stress, like an irritable plexus, is sometimes evidenced by this feeling of a lump in the throat, and this condition which I have described explains it.

It is perfectly possible to have a lingual

tonsil cough and a bronchitis existing in the same person. If one treats the bronchial part and not the lingual tonsil, he is falling far short of his duty.

Dr. J. Payson Clark, Boston: My experience has been that the enlargement of the lingual tonsil is observed most frequently in middle aged women. The enlargement of the lingual tonsil in children, in my experience, is a very rare condition.

I have had to remove the lingual tonsil in several cases, and have used Myles' lingual tonsillectome. I have also used the wire loop. If this loop can be used it is better, because you are less liable to have hemorrhage. I have not had hemorrhage in any of my cases. I remember being called late one night to see a case for bleeding, where another physician had removed the lingual tonsil that day. The bleeding was not violent, but persistent, and I had a little difficulty in stopping it.

Dr. Thomas Hubbard, Toledo: I think there is no question about the intimate association between acute throat conditions and acute thyroiditis, because I think we find many cases in which we are able to successfully treat the subacute or chronic conditions. It is most helpful in the reduction or checking of thyroiditis.

In a ten-year-old child, four years after removal of her tonsils and adenoids, her lingual tonsils were found enormously enlarged. There was no suggestion of recurrence of either tonsillar or adenoid tissue, but these large masses were a mechanical obstruction to swallowing. I clipped off portions of the lingual masses, and following that there was no improvement nor relief from dysphagia.

Dr. Robert C. Myles, New York City: There are several points about the lymphatic tissue at the base of the tongue. It seems to me that a very interesting one is whether the removal of the tonsils in early life does not by some vicarious attempt on the part of the lingual tonsil to supply the physiologic function of the tonsil, result in their becoming hypertrophied in this attempt.

It has been my habit for many years to remove lingual tonsils in a little different way from that originally indicated. On account of some hemorrhages and cicatricial tissue, I have tried to devise some method of obviating both; one was to take out every other lymphatic tonsil with a guillotine and leave an intermittent one. That aided me very much in relieving

the scar tissue. I have also left islands of tissue. In using the guillotine one should not press too deeply. If you go beneath the tonsil you are more liable to have hemorrhage than if you put the proper pressure on the guillotine, which makes it possible to remove as much as you may elect.

Dr. Burt R. Shurly, Detroit: The importance of this relationship of Waldeyer's ring to the thyroid is certainly a very exact and definite thing, but the key to the whole situation, to my mind, is infection. And while my paper which was referred to by Dr. Sluder was written five years ago, I have followed up carefully a large series of cases since that time. Of course, as Dr. Sluder says, no one expects to treat cases in this manner and not have the proper surgery of the thyroid attended to when that is necessary.

In regard to cases of hemorrhage from the throat, I think perhaps there are a great many mistakes made by not properly examining the chest. We know full well that twenty-five per cent. of all cases of pulmonary tuberculosis have hemorrhage at some time or other during the course of that disease, and it seems to me that it is just a matter of not thinking of that. We should always have a very thorough and complete chest examination whenever there has been hemorrhage from the throat.

Dr. John Mackenty, New York: I believe that any infection in the throat may have secondary expression in the thyroid. This was brought home to me very forcibly by the case of a man with a foreign body in the esophagus. I put in the bronchoscope and failed to get the foreign body, but found the spot where the body had rested. This man was very ill, with a high temperature and pulse, and had a tender enlarged thyroid gland. I was positive there was pus in the neck, and opened the neck and went down and found no pus. I then opened the thyroid gland, and in the center of the gland I found a large abscess which was secondary to the condition in the esophagus.

On another occasion, following the removal of the tonsil, there was considerable local infection and the patient developed acute thyroiditis. So I believe we may say that any infection in the throat or nose may have secondary manifestations in the thyroid, either simple or suppurative.

With regard to the question of bleeding of

lingual tonsil, I have found benefit from forcibly pulling the tongue forward and holding it in that position for a time.

Dr. Max A. Goldstein, St. Louis: In reference to Waldeyer's ring, I think it has been rather insignificantly looked into, and Sluder's observation about the relationship to systemic infections taking place through this small lower lymphoid mass ought to give us much food for thought. We are doing a lot of operative work on the faucial tonsil, and our enucleations are coming thick and fast. We know that even when the faucial tonsil has been thoroughly encapsulated, we do have recurrences of systemic infections; and it is likely that many of those infections come, not through the lingual tonsil, but through the lymphoid masses which lie about the pillars. There is some possibility that such observations as were presented by the essayist may give us an opportunity to think of this radical surgery when the time comes for the pendulum to swing the other way.

Dr. Swain has pointed out on previous occasions that the mass of lymphoid tissue is rather dependent for its pathology and inflammation more on the intense venous relationship than on the lymphatic. I think that varicosities are sometimes as frequent in lingual tonsil as are the acute and chronic follicular inflammatory reactions, but those are things this paper has brought forth, and I believe that the development of this particular phase of Waldeyer's ring will give us a little closer insight into the whole pathology of this lymphoid area.

Dr. Greenfield Sluder, St. Louis (closing the discussion): I feel that a very substantial addition to the paper has been given by Dr. Swain in his explanation of the globus hystericus. I did not know the network arrangement of the veins beneath the lingual tonsil, and it is not recorded in any of the anatomies I know of.

Dr. Clark spoke of the enlargement of the lingual tonsil in children being rare. That is not my observation. The enlargement of the lingual tonsil in children is a very frequent manifestation.

I have seen the faucial tonsil take on the recurrent inflammatory reaction with sore throat after faucial enucleation.

That the chest must be investigated in cases of cough seems to me to be self-evident.

Ozena and Asphyxiating Gas.

By MARCEL NATIER, M. D., Paris, France.

The writer finds a melancholy pleasure in presenting the lamentable history of a young soldier, in that he feels that the recital of his case goes to prove conclusively that ozena is but a local manifestation of a constitutional condition, a fact which Natier had repeatedly maintained in previous communications.

In October, 1915, a soldier, twenty-four years of age, who had always been in perfect health, no hereditary or venereal affection, received five bullet wounds and was rendered unconscious by a bomb of asphyxiating gas. His mask had dried up and was valueless. He recovered consciousness only to fall into repeated syncope. He was carried to the rear, transferred to Vitry le Francois, where he had to remain three weeks because of his febrile condition. He suffered most excruciating pains from his nose to the bifurcation of his bronchi, and received special care. Five weeks after the accident he was removed to Paris, to a base hospital, where he remained six months. During all this time he could not swallow except with most excruciating pains. He then was admitted, March 18, 1916, to the Salpêtrière, where his extreme muscular weakness, respiratory troubles, ozena and vomiting were noted. On October 25th, the writer first saw him, and noted remarkable collapse of both alæ, ozena active, marked anemia. The collapse of the alæ caused insomnia and mouth breathing, with pain. To relieve this the patient put pieces of a match in each nostril on going to sleep. The ozena was noticed three or four months after the accident for the first time. Irrigations with warm salt water, while causing pain, were followed by amelioration.

As the patient was always well until his injuries, the writer feels justified in tracing the causal factor of his ozena to the asphyxiating gas and the subsequent functional disorders.

Ordinarily ozena is considered inseparable from old and far advanced atrophic rhinitis traceable back to the first years of life, the atrophy slowly developing.

In this soldier the determining cause was at the time sudden and violent, the effect cruel and deplorable. That the unfortunate man did not succumb immediately or in the general delay at the arrival of succor is marvelous. The poor fellow was fortunate in that he did

not develop tuberculosis, as thousands of others do. The patient recovered.

The writer says, in his opinion ozena is not a true morbid entity, idiopathic or real, but a unique and always a symptomatic expression of a profound localized disturbance of the general health. Once again it is verified, and supports the assertion that ozena is but a consequence, distant more often, but also under color of exceptional events of the physiologic calamity. The cause of the latter is of less importance. Its intensity merits consideration.

This truth admitted and its verity visible, impresses him.

We are compelled to discard, as he has always done in his studies of the subject, the various theories more or less fantastic, and in particular the microbic theory, invoked to explain the production of ozena.

(1) Sarcoma of the Nasal Septum; (2) Laryngoepiglottidean Cyst.

By MAX A. GOLDSTEIN, M. D., St. Louis.

Male, aged fifty-six years. Eighteen months ago began to be troubled with occasional obstruction of left side of nose, continuing about a month, followed by relief and then recurrence. No history of epistaxis. Latterly two or three nose-bleeds, not very profuse. No headache or pain of any kind. Loss of fifteen pounds in weight in six months.

Nasal Examination—Mass on septum obstructing left side. Right surface of septum infiltrated and thickened, causing some obstruction on that side. Nasopharynx negative. Throat negative. No evidence of involvement of the accessory sinuses.

Operation—September 26, 1916, mass, together with the entire septum, being extirpated. Recurrence after one month. Histologic examination of mass showed round cell sarcoma.

CASE OF LARYNGOEPIGLOTTIDEAN CYST.

Boy, twelve years old, came under observation September 27, 1915. Had been hoarse since he was one month old. This hoarseness had been ascribed by family physician to a "cold." No laryngologic examination had at any time been made. The condition seemed to remain quiescent all these years until shortly before the boy was brought to the writer for examination, at which time he had become very dyspneic. The dyspnea was quite marked; patient anemic and frail, not cyanotic, and un-

able to speak above a whisper. There had not been much difficulty in swallowing. No regurgitation of food. Laryngeal examination showed a mass the size of a walnut on the left side, involving the laryngoepiglottidean region. There was no fever. Mass was yielding to touch and could easily be palpated with the finger. Mass incised, the contents consisting of clear, yellow, sticky fluid. Subsequent examination of vocal cords, examination of which was heretofore impossible because of obstruction of view by the mass, was negative. Boy regained the use of his voice, though through habit he would speak in an undertone. No recurrence of cyst to date, and boy now speaks in normal voice.

(To be continued.)

Analyses, Selections, Etc.

Conducted by
MARK W. PEYSER, M. D., RICHMOND, VA.
Secretary Richmond Academy of Medicine and Surgery, etc.

A Comparison of Physical Signs, Symptoms and X-Ray Evidence Obtained in Pulmonary Tuberculosis.

F. H. Heise and A. L. Sampson, of Trudeau, New York, report in the February number of the *American Review of Tuberculosis*, a comparative analysis of the evidence obtained by different methods of examination in pulmonary tuberculosis. They review the varied pathology of the lung in tuberculosis and the probable associated changes of density of the different lesions as assumed to exist as a basis for the interpretation of X-ray plates. By means of the X-ray some idea is gained of the extent of the disease and the type of pathology underlying the physical signs, giving rise to the local and general disturbances of the system, thus bridging, in part, the gap which is left between the evidence derived from symptoms and physical signs respectively. The authors have been impressed with the frequency of cases with clinical evidence of pulmonary tuberculosis without signs in the X-ray plates of gross densities but with definite shadows of tubercles in the linear arrangement, concomitant with the pulmonary ramifications. They interpret this as a possible manifestation of a lymphatic pulmonary tuberculosis, and infection from the medium bronchi of the lymphatic tract or spaces of the tissue surrounding the medium bronchi and arteries. They call this the peribronchial or lymphatic type as con-

trasted with the parenchymatous or alveolar type. Dividing the latest series of 235 cases at the sanatorium into these two groups they have tabulated the percentage of occurrence of those symptoms, physical signs and laboratory findings which would in themselves indicate the probable existence of a pulmonary tuberculosis. They conclude from the analysis that there is a type of pulmonary tuberculosis showing X-ray shadows of peribronchial distribution which is otherwise characterized as follows:

1. By the less frequent occurrence of hemoptysis.
2. By the infrequency of the occurrence (7 per cent.) of tubercle bacilli in the sputum.
3. By the limited occurrence (3 per cent.) of medium coarse rales.
4. By the less frequent occurrence of the positive complement fixation reaction.
5. By an apparently lessened skin sensitiveness to tuberculin.

It would seem probable that this type of lesion has no communication with a bronchial lumen—that absorption into the blood stream does not take place as freely as in the usual type.

Assuming a justification for the differentiation of the two types seen in the X-ray plates the authors make a further comparison with the usual classification of cases made by symptoms and physical signs. They find that roughly one-half of the incipient cases are of the patchy or parenchymatous type. Of the moderately advanced cases the greater number showed evidence of parenchymatous change. The latter is probably a more advanced or more unfavorable lesion or the expression of a different kind of infection either as to time or route of infection or both. The subdivision of incipient cases makes feasible a more accurate knowledge of the type of pathology and probably also of the clinical course.

The X-ray is also found in their analysis to be of great value in the diagnosis of early cases without definite physical signs and as a check upon the physical examination where the lesions give signs limited to dullness, changes in breathing and increased voice transmission.

Cigarette Smoking and Tuberculosis.

G. B. Webb, of Colorado Springs (Major, M. R. C., U. S. A.), publishes a short report in the March number of the *American Review*

of *Tuberculosis* on the effect of inhalation of cigarette smoke on the lungs as observed in over 3,000 chest examinations of soldiers recently examined for tuberculosis. Bronchitic conditions were noted, characterized by the presence of ronchi or coarse sibilant rales and sometimes also by coarse moist rales. The majority of cigarette smokers have these ronchi while the majority of non-smokers, pipe smokers and cigar smokers do not. Among the soldiers deemed unfit for service because of tuberculosis a larger percentage of non-smokers than smokers were discharged. If non-inhalers who do not show ronchi are added to the non-smokers then thirty per cent. of those discharged on account of pulmonary tuberculosis did not inhale cigarettes.

Webb concludes that his studies at least suggest that the inhalation of cigarette smoke does not aid in the outbreak of pulmonary tuberculosis.

Book Announcements and Reviews

The Monthly will be glad to receive new publications for acknowledgment in these columns, though it recognizes no obligation to review them all. As space permits we will aim to review those publications which would seem to require more than passing notice.

A Treatise on Clinical Medicine. By WILLIAM HANNA THOMSON, M. D., LL. D., formerly Professor of Practice of Medicine and of Diseases of the Nervous System in the New York University Medical College; Ex-President of the New York Academy of Medicine, etc. Second Edition Revised. Octavo volume of 678 pages. Philadelphia and London: W. B. Saunders Company. 1918. Cloth, \$5.50 net.

The author begins with a chapter on "Catching Cold," a condition which he claims that, outside of hot, moist climates, is "the most common cause of disease and of death." His discussion of this subject is both interesting and plausible. The second chapter deals with the "Significance of Common but Important Symptoms," such as emaciation, cough, dyspnea, and vomiting, and presents a practical aspect, with a value for every-day work. Chapter III refers to the action of "Remedies"—non-medicinal, medicinal, and vaccine and serum therapy,—and serves an important purpose in a work of this character. Then follow chapters on "The Infections," "Diseases of Special Tissues or Organs," and subjects in general that commonly appear in a volume on the practice of medicine. We find no mention as to the use of vaccine in

pneumonia, at which we are surprised, though possibly this was because its practical value has not been sufficiently determined. However, notwithstanding what appears to us as a tendency at times to dogmatism, especially with reference to treatment, the merit of the book is beyond doubt, and should cause it to receive a hearty reception.

Criminology. By MAURICE PARMELEE, Ph. D. Published by The Macmillan Co. 1918. Price, \$2.

The principal merit of the author is the application of scientific methods to the study of human and social phenomena. Parting from the fundamental principle that human conduct is due to natural causes, he considers in very great detail the problems of criminology as depending on various problems of other sciences. Anatomy, physiology, psychology and psychiatry supply the means for the study of characteristics of criminals. Zoology, anthropology, history and sociology contribute to the origin and evolution of crime. Meteorology, demography, economics, politics aid in the study of environment. Jurisprudence contributes to the study of the penal treatment.

Accordingly, the author with considerable elaboration discusses the relation of each of those several sciences to the problems of criminology which is but a hybrid product of other fundamental sciences. Twenty-seven chapters are devoted to the study of that relationship which is presented, indeed, in the most instructive manner. Particularly interesting is the chapter on the mental basis of criminality. Here the author studies instinct, habit, feeling and intelligence in general and gradually leads the reader to the conception that the criminal class is at all times and places made up of persons who cannot adapt themselves to organized society. Prevention of crime occupies a prominent part in the present volume. The author's view is that prevention is closely associated with prevention of other social evils and that a normal life is the best preventive of crime.

The book is written entertainingly and denotes the author's excellent grasp of the entire subject of Criminology. It is to be recommended to all who are interested in social problems.

ALFRED GORDON.

Editorial.

Medical College Of Virginia Finals.

Finals of the eightieth session of the Medical College of Virginia were begun on the evening of June 2, with the baccalaureate sermon by the Rev. H. D. C. MacLachlan, D. D., of Seventh Street Christian Church. For the first time in the history of the school, nurses of Memorial Hospital were graduated at the same exercises with the students in the medical, dental and pharmacal departments. There were about 90 graduates in all four departments. In keeping with war times, no banquets were served.

The Board of Visitors of the College, at its annual meeting on the 3rd, decided that, beginning with the coming session, women will be admitted to the medical, dental and pharmacal classes of the College, certainly for the period of the war and most probably longer. This course was decided upon, it is stated, as a war measure, that graduates in these departments may supply some of the vacancies in the professions which will be occasioned by the calling to colors of the men.

There was no meeting of the Alumni Society at this time, but there will be an adjourned meeting later on.

Commencement exercises were held in the City Auditorium on the evening of the 4th. Major Stuart McGuire, Dean of the Faculty and Director of Base Hospital No. 45, and several members of the Faculty who are in the service, appeared in uniform and occupied seats on the stage. Rev. Russell Bowie, D. D., chaplain of the unit, opened the exercises with prayer and Dr. McGuire made his report of the year's work. The address of the evening was given by Col. Victor C. Vaughan, M. C., N. A., Dean of the Department of Medicine and Surgery of the University of Michigan. Mr. J. R. McCauley, secretary-treasurer of the College, read the hospital appointments and announced the following names of medical graduates who have enlisted in the naval service as assistant surgeons with the rank of lieutenant of the junior grade: Drs. E. W. Buckingham, Jr., Lynchburg; Jas. D. Clements, Gloucester; A. L. Denton, Middlesex, N. C.; Walter L. Drewry, Wakefield; G. B. Dudley, Jr., Martinsville; Roger H. DuBose, Darlington, S. C.; Francis P. Gardner, Covington;

Alfred Grussner, Brooklyn, N. Y.; Martin A. Hatcher, Rosehill, N. C.; John A. Hawkins, Jr., Danville; J. P. Henderson, Mayesville, N. C.; Gleaves B. Kenny, Ethelfelts; Spurgeon B. Moore, Globe, N. C.; H. R. Phinney, Jr., Richmond; Wm. A. Simpson, Richmond; Geo. H. Snead, Fork Union; C. Lester Wood, Stamford, Conn.

The following have volunteered but have not yet received their commissions: Drs. I. T. Peters, Camp Creek, W. Va.; Henry H. Wescott, Painter; Jas. F. Terrell, Ashland.

Hospital appointments are as follows:

Memorial Hospital, Richmond—Drs. G. B. Kenny, Ethelfelts, and J. R. Shultz, Wheeling, W. Va.

Johnston-Willis Sanatorium, Richmond—Drs. Willie Meyer, Enfield, N. C.; I. T. Peters, Camp Creep, W. Va., and Wallace Spiegel, Norfolk.

Tucker Sanatorium, Richmond—Dr. L. Beverley Chaney, Roanoke.

Virginia Hospital, Richmond—Drs. Clarence E. Brown, Rockwell, N. C., and W. A. O'Brien, Jr., Leaksville, N. C.

Retreat for the Sick, Richmond—Undergraduates, Thurston Formy-Duval and B. O. Bell.

City Jail Hospital, Richmond—Undergraduate, Peyton S. Lewis.

N. Y. Neurological Institute, New York City—Dr. Albert B. Siewers, Richmond.

Gouverneur Hospital, New York City—Dr. Wilbur R. Bracey, Richmond.

James Walker Memorial Hospital, Wilmington, N. C.—Dr. Claude H. Fryar, Delway, N. C.

St. Vincent's Hospital, Norfolk—Dr. John D. Crenshaw, Cambria.

Oglethorpe Sanitorium, Savannah, Ga.—Dr. Gilbert W. Rolston, Mt. Clinton.

Highsmith Hospital, Fayetteville, N. C.—Dr. Oscar L. Parker, Clinton, N. C.

Miami Valley Hospital, Dayton, O.—Dr. Lawrence P. Fox, McConnellsville, O.

McLeod Infirmary, Florence, S. C.—Dr. Chas. S. McCants, Winnsboro, S. C.

Virginia's Medical Honor Roll.

Appeals are still being made for doctors for the Medical Reserve Corps. Information as to requirements will be gladly furnished by the President of the Medical Examining Boards in this State, Maj. Robert C. Bryan,

M. R. C., Grace Hospital, Richmond, or by chairmen of the Boards at Ft. Monroe, Norfolk or Roanoke.

Virginia is still far down the list in the percentage of doctors furnished in proportion to her medical population. According to the *Journal of the American Medical Association* of June 1, 1918, Arizona has furnished 23 per cent., or the largest number of doctors of any of the States in proportion to her medical population, for the Medical Reserve Corps, and Arkansas the smallest, or 7.8 per cent. Virginia has furnished 15.7 per cent. There are 2,509 doctors in Virginia, 1,411 of whom are under 45 years of age and 1,551 under 55 years, up to which age doctors are asked to volunteer for the service. Virginia has furnished a little over 25 per cent of those eligible by virtue of age, but there are of course, some of the above number exempt because of physical disability.

We append below, *Virginia's Medical Honor Roll* as taken from the above named issue of the *Journal of the A. M. A.*

ACCOMAC COUNTY: Chincoteague—Clay Miller Easter. Greenbackville—Herbert Clifford Mallory. New Church—Charles Edward Critcher. Onancock—James C. Doughty. Parksley—Ira Hurst. Tangier—Grover Baehe Gill.

ALBEMARLE COUNTY: Charlottesville—Bernard L. Jarman, Hugh T. Nelson, Jr., Chas. Colville Tennant. Covessville—Francis Page Nelson. Greenwood—William Wilson. Red Hill—Richard D. Anderson. University—William Hall Goodwin, Minor Carson Lile, Rockwell Emerson Smith, Dan Hiter Witt, Hunter Saml. Woodbery.

ALEXANDRIA COUNTY: Alexandria—Samuel Broders Moore; Llewellyn Powell. Ballston—Williamson Crothers Welburn. Cherrydale—James Howard Walton. Ft. Meyer—Julian M. Cabell. Lincolnia—Thomas Franklin Dodd.

ALLEGHANY COUNTY: Clifton Forge—Claude N. Rucker, James Neal Williams, Frank Laird Wyssor. Iron Gate—Achilles Douglas Tyree.

AMELIA COUNTY: Amelia—Wm. Reid Putney. Amon—James Loving Hammer. Jetersville—Robert John Styers. Mattoax—Leslie Clyde Burton.

AMHERST COUNTY: Amherst—Basil Ellis Strode. New Glasgow—Waverly Stafford Tucker.

AUGUSTA COUNTY: Fishersville—Harry F. White. Mt. Solon—Jas. Wright Clarkson. Staunton. Richard P. Bell, James Lemuel Martin, Wilbur Moorehead Phelps, Alexander F. Robertson, Jr. Stuarts Draft—Isaac Roy Wagner. Waynesboro—Harvey R. Livesay, Wm. Patterson.

BATH COUNTY: Warm Springs—Thos H. Massey.

BEDFORD COUNTY: Bedford—Wm. Isam Laughon, Geo. L. A. Pogue. Holcombs Rock—Jas. Addison Meriwether.

BRUNSWICK COUNTY: Barrows Store—Bernard Barrow.

BUCKINGHAM COUNTY: Dillwyn—Chas. A. Brown.

CAMPBELL COUNTY: Altavista—John Arnold Board. Lynchburg—John Wesley Carroll, John W. Davis, Thomas Newman Davis, Arthur Hamilton Deekens, Bernard Hewett Kyle, Jos. James Ligon, Wm. Henry Roberts (colored), Simon Harry Rosenthal, James Joseph Ligon.

CAROLINE COUNTY: New London—John Randolph Travis.

CHARLOTTE COUNTY: Phenix—Ray Atkinson Moore.

CHESTERFIELD COUNTY: Bon Air—Barton Bates McCluer. Midlothian—John Lloyd Tabb.

CLARKE COUNTY: Gaylord—Lewis M. Allen. Millwood—McClure Scott.

CRAIG COUNTY: New Castle—Bernie R. Caldwell.

CULPEPER COUNTY: Raccoon Ford—Jas. Oscar Mundy, Jr.

CUMBERLAND COUNTY: Cumberland—Wm. L. Varn.

DINWIDDIE COUNTY: McKenney—Edgar Williams Young. Petersburg—Chas. Royal Alexander, John Rochester Booth, Walter M. Brunet, H. Aulick Burke, John Bernard Halligan, Douglas Beverly Johnson, Wm. Baird McIlwaine, Mason Romaine, Jas. Thos. Shelburne, Wm. Amos Trevette.

ELIZABETH CITY COUNTY: Hampton—Joseph Wilton Hope, Harry Dresser Howe, William Edward Knewstep, Paul Jones Parker, Jas. Otho Parramore, Marshall Wray Sinclair, Edward Neth Schillinger, Thomas M. Wood. National Soldiers Home—Frederick Elmer Jenkins. Phoebus—Ruppert A. B. Lloyd.

FAIRFAX COUNTY: Fairfax—Howard Fletcher. Falls Church—James McNelledge Fadeley, Tunis C. Quick. Ft. Hunt—Edwin W. Patterson. Vienna—Arthur G. Coumbe, Stewart Maxwell Grayson.

FAUQUIER COUNTY: Markham—Philander Chase Riley. Morrisville—Wm. Dehart Fitzhugh. Paris—Edgar Ackley Moore. Rectertown—Edgar Bentley Noland. The Plains—Robert B. Shackleford. Warrenton—Walter Gordon Trow.

FLUVANNA COUNTY: Columbia—John James Nelson. Kent's Store—Booker Lee.

FRANKLIN COUNTY: Taylors Store—Louis C. S. Haynes. Union Hall—Frederick Pelham Sutherland.

FREDERICK COUNTY: Clear Brook—Chauncey Elmo Dovell. Gore—Charles Augustus Young. Winchester—Walter Cox; Jerome Thurston Quirk.

GLOUCESTER COUNTY: Bena—Merritt W. Healy. Gloucester—Landon Elwood Stubbs. Ware Neck—Thomas Rollins Marshall.

GRAYSON COUNTY: Independence—Wayne McLean Phipps. Galax—Whitfield Painter Davis.

GREENVILLE COUNTY: North Emporia—Hugh Benjamin Mahood.

HALIFAX COUNTY: South Boston—John Jennette Neal.

HANOVER COUNTY: Ashland—Allen J. Chenery, Edward Le Baron Goodwin.

HENRICO COUNTY: Glen Allen—Alexander McLeod. Richmond—Edward Turner Ames, Meriwether L. Anderson, Paul V. Anderson, George E. Barksdale, Quintus Harper Barney, Archie A. Barron, Greer Baughman, Oliver Francis Blankingship, Wyndham Bolling Blanton, James Gordon Boisseau, Marshall L. Boyle, Jr., Oliver C. Brunk, Robert Coalter Bryan, Calvin Childress, John A. Cloyd, Milton Buell Coffman, Giles B. Cook, Cornelius Byrd Courtney, Baxter Lindsay Crawford, Beverly Fitzwilson Eckles, John M. Emmett, Gerald A. Ezekiel, John Blair Fitts, Edward L. Flanagan, Frederick Peter Fletcher, Roy Clyde Fravel, Joseph Francis Geisinger, William

Wallace Gill, W. Armistead Gills, John Stewart Gilman, Isaac Harry Goldman, Charles F. Graham, Kenneth Dawson Graves, Alfred Leftwich Gray, Harrison Llewellyn Harris, Horace Taylor Hawkins, Henry Jackson Hayes, Alvah Livingston Herring, Blanton Hillsman, Frederick Murchison Hodges, Raymond Cottrell Hooker, Erasmus Guy Hopkins, William Benjamin Hopkins, Julius J. Hulcher, Jas. Morrison Hutcheson, Charles Howard Lewis, Frank William Hicks Logan, John Willis Martin, Jos. Levering McCabe, John McGuire, Stuart McGuire, Joseph Thompson McKinney, Chas. Wilbur Mercer, Waller Nelson Mercer, John Garnett Nelson, John O'Brien, Jr., Thomas Helm Odeneal, William Lowndes Peple, Charles Phillips, William Branch Porter, Robert Sheffey Preston, Frank Harrell Redwood, William A. Reese, Charles Louis Rudasill, Turner Southall Shelton, Walter D. Simmons, Jr., Fayette Allen Sinclair, James Henderson Smith, Lewis B. Staton, Henry S. Stern, Bronson E. Summers, Roscoe Franklin Thornhill, Robert Edward Timberlake, Albert Pierce Traynam, Dorsey Goodwin Tyler, Francis W. Upshur, Junius Ernest Warinner, Jr., Francis K. T. Warrick, Talmadge Weatherly, William Robert Weisiger, Beverly Randolph Wellford, Geo. Washington White, Lawther Jackson Whitehead, Robert Graham Wiatt, Leslie B. Wiggs, Carrington Williams, Wm. Franklin Williamson, Robert Grant Willis, Robert Herbert Wright, Rio Vista—Patrick Michael Carroll.

HENRY COUNTY: Martinsville—Dana Olden Baldwin.

HIGHLAND COUNTY: Crabbottom—John Franklin Stover.

ISLE OF WIGHT COUNTY: Smithfield—Samuel Abram Riddick.

KING GEORGE COUNTY: Ferrell—Veola O. Carruthers, Jr.

LANCASTER COUNTY: Kilmarnock—Morgan E. Norris.

LOUDOUN COUNTY: Ashburn—George Anni-
stead Noland. Lovettsville—Carroll Edward Foley.
Purcellville—Ralph Mortimer Thompson. Waterford—Leslie T. Rumiselle.

LUNENBURG COUNTY: Dundas—Robert Lucas Ozlin.

MADISON COUNTY: Uno—Early B. Dovell.

MATHEWS COUNTY: Cardinal—Eric Theophile Sandberg.

MECKLENBURG COUNTY: Chase City—Edward Ballard Brooks, Adam T. Finch.

MIDDLESEX COUNTY: Harmony Village—James Allen Bennett. Lot—Benjamin Blanton Dutton.

MONTGOMERY COUNTY: Cambria—Ollie Allison Ryder. East Radford—Jacob C. Bowman. Radford—Wm. O. Poindexter.

NANSEMOND COUNTY: Suffolk—Wm. Theodore Gay.

NELSON COUNTY: Avon—James Filmer Hubbard.

NEW KENT COUNTY: New Kent—John Bolling Vaiden.

NORFOLK COUNTY: Berkley—George B. West. Norfolk—James W. Anderson, Wm. E. Bailey, Henry Colmore Bradford, Israel Brown, Samuel Elkan Brown, Rhodric W. Browne, George B. Byrd, Clarence Wills Cowper, John Daugherty, Charles Joseph Devine, Stephen Roszel Donohoe, Jr., Herbert R. Drewry, Wilson Elliott Driver, Garland E. Faulkner, Marion S. Fitchett, Lomax Gwathmey, Frank H. Hancock, Charles Hatcher, Joseph Stewart Hume, Claude Dalby Kellam, Beverly Randolph Kennon, Burnley Lankford, John Marion Love, Junius F. Lynch, Robt. Holman Noell, Andrew Lyman Paey,

George Alley Renn, Nathaniel F. Rodman, Harry Ralph Seelinger, Charles C. Smith, Herbert Drew Snyder, Robert S. Spilman, Daniel Trigg, John Quincy Adams Webb, Robert Edward Whitehead, Claiborne Willcox, Readding Lloyd Williams, Thomas V. Williamson. Portsmouth—Sherwood Dix, Joe Clinton Dunford, Gray G. Holladay, William Karp, Samuel Poindexter Oast, Jr., Wilson Pendleton, Lonsdal Joseph Roper.

NORTHAMPTON COUNTY: Eastville—William Bell Trower.

NORTHUMBERLAND COUNTY: Wicomico Church—Samuel Downing.

NOTTOWAY COUNTY: Blackstone—Arthur Hooks. Burkeville—Robert Emmett Jones, Jr.

ORANGE COUNTY: Orange—Isaiah Allan Jackson, Frank G. Scott, Jr.

PITTSYLVANIA COUNTY: Danville—Henry A. Brady, Samuel Tilden Elliott, Wm. B. Fowlkes, Edward Howe Miller, Jr., Albert Lincoln Winslow. Museville—Oscar E. Hedrick. Sutherlin—Clyde Lester Bailey.

POWHATAN COUNTY: Ballsville—Roscoe C. Carnal. Tobaccoville—Otis Hillsman Whitlock.

PRINCE EDWARD COUNTY: Farmville—Charles Bledsoe Crute, Thomas Griffin Hardy.

PRINCE GEORGE COUNTY: City Point—Maurice Arthur Selinger, Hubert Lee Wyatt. Hopewell—James Spencer Burger, Jeffrey Neese Elder, Robert Julius Evans, Jr., Frank Levinson, Joash Yohannan, Roscoe W. H. Buckner, Seth Bridgeman Perry.

PRINCE WILLIAM COUNTY: Haymarket—Wade Cleveland Payne. Manassas—William Fewell Merchant, Walter A. Newman, John Downing Williams. Quantico—Charles L. Fackler, Edgar D. Smith.

PULASKI COUNTY: Draper—Edgar Clay Harper. Pulaski—Charles Ewing Dyer, William A. Lucas, James Walker Tipton. Snowville—Forrest T. Summers.

RICHMOND COUNTY: Newland—John Hampton Hare.

ROANOKE COUNTY: Airpoint—Charles Edward Sears. Catawba Sanatorium—Dean Baldwin Cole. Hollins—Allen Jackson Black. Roanoke—John Otto Boyd, Samuel Beverly Cary, Paul Davis, Douglas Shelburne Divers, Lylburn Clinton Downing, Frank Albert Farmer, Everett Russell Ferguson, Clifford Algernon Folks, Hugh Johnson Hagan, Elijah Maxie Hicks, Jr., George Samuel Hurt, Alfred Power Jones, William Shirey Keister, James Warren Knepp, George Madison Maxwell, Ernest Helm Muse, William Leven Powell, Lewis Geo. Richards, James H. Roberts, Richard Gordon Simmons, Hugh H. Trout, Carl Otto Wolff. Salem—Guy B. Denit.

ROCKBRIDGE COUNTY: Lexington—John William Hobbs Pollard, Reid White.

ROCKINGHAM COUNTY: Dayton—George Frank Hollar. Elkton—Ernest Brubaker Miller. Harrisonburg—Thomas Clinton Firebaugh.

RUSSELL COUNTY: Cleveland—James Menfee Talbee. Clinchfield—Samuel Benjamin Nickels. Dante—Rolan Eldridge Stump Taylor. Lebanon—Samuel Merriman Ford.

SCOTT COUNTY: Clinch—A. Null Osborne. Clinchport—Eugene Patrick Cox, Charles Radford Fugate. Gate City—Edwin M. Corns.

SHENANDOAH COUNTY: Forestville—Allen Casper Biller. Woodstock—Carl William Shaffer.

SMYTH COUNTY: Chatham Hill—David Jackson Buchanan. Chilhowie—Ezra Eugene Neff. Marion—Ray Carrington Blankenship, Francis Beat-tie Hutton, Jr.

SOUTHAMPTON COUNTY: Boykins—George Harrison Musgrave.

SPOTSYLVANIA COUNTY: Fredericksburg—Joseph Nicholson Barney, Urban F. Bass, Frank Cushing Pratt. Spotsylvania—William A. Harris.

SURRY COUNTY: Claremont—George Washington Lacey.

SUSSEX COUNTY: Stony Creek—Andrew Daniel Parson. Waverly—Hartwell Graham Stoneham.

TAZEWELL COUNTY: North Tazewell—Jack Walter Witten. Pocahontas—David Alexander Haller; Martin Luther Sowers. Pounding Mill—George Luther Zimmerman. Raven—Merwin B. Moore. Richlands—John Marvin Ratliff. Shawver Mill—James Thornton Neel.

WARREN COUNTY: Browntown—Charles Franklin Updike. Front Royal—Robert P. Cooke, William Justin Olds.

WARWICK COUNTY: Newport News—Otis Taylor Amory, Walter Cleveland Caudill, Robert Allen Davis, Thomas J. Kagey, Royall Howard McCutcheon, Robert Whitehead, Frank Delaplaine Willis.

WASHINGTON COUNTY: Abingdon—David Leighton Kinsolving, George Victor Litchfield, Jr., William Wallace McChesney, James Coleman Motley. Bristol—Nicholas Ivan Ardan, Hamil Smyth Scott, William S. Wiley. Lodi—William Hervey Remine.

WESTMORELAND COUNTY: Colonial Beach—Wm. Landon Brent, George Blight Harrison. Hague—Richard T. Arnest.

WISE COUNTY: Appalachia—William Byrdwill Peters, Jr., Harry Richard Smith. Coeburn—Isaac E. Wolfe. Glamorgan—John Thomas Ramsey. Norton—Alonzo Walter Saunders. Roda—John Adolph Rollings. Stonega—George Garland Rhudy. Toms Creek—Charles Clay Carr.

WYTHE COUNTY: Max Meadows—Lewis Sidney Herndon. Rural Retreat—Alfred Bryson Greiner. Wytheville—Edward Percy Odend'hal.

YORK COUNTY: Grafton—Stanhope B. Berkley.

The Man Power Bill.

Mr. Miller, of Washington State, has introduced in the House of Representatives, a bill which should have the support of the medical profession of the entire country. The purpose of the bill is "to conserve and increase the industrial man power of the United States" and "to increase the efficiency of the military and naval forces thereof." To accomplish this, he has suggested enlarging the powers of the Public Health Service "by creating and establishing a Division of Venereal Diseases therein; providing for the punishment of immoral persons afflicted with venereal disease who go or attempt to go from one political division to another, and persons who assist or connive at the same; establishing internment hospitals; authorizing the Secretary of the Treasury to establish all needful rules and regulations relating to the subject matter of this Act; and authorizing an appropriation therefor."

Various States have done and are continuing to do what they can to exterminate venereal diseases, and the establishment of extracantonment zone clinics in many places is another step in this direction. The necessity for the passage of some such bill as the one suggested by Mr. Miller is apparent when we note reports from camps all over the country. Venereal diseases lead over all other complaints which render soldiers ineffective in America. The national army, composed of the men being drafted from civil life, shows the greatest incidence of venereal diseases among the soldiers, and the regular army, the least. Figures for the national guard are much smaller than those for the national army. Surely the current should be stemmed at its source.

Norfolk County Medical Society.

With the annual election of officers the first of this month, this Society began what members agree should be one of the most active and important years in its history. Norfolk physicians are heartily co-operating with army and navy medical officers to maintain the health of the city and prevent any epidemic of disease such as usually follows a large influx of population. One problem will be to provide adequate hospital facilities, as all hospitals in Norfolk and all army and navy hospitals are at this time practically taxed to capacity.

Officers elected for the ensuing year are: President, Dr. Powhatan S. Schenck; vice-president, Dr. Southgate Leigh; and secretary-treasurer, Dr. Dandridge P. West, all of Norfolk city.

Dr. Alexis Carrel,

Of the Rockefeller Institute, New York, has been promoted by the French Government to the rank of commander of the Legion of Honor, for his medical services during the war.

Emergency Hospital at Newport News.

Bids were submitted in May to the Bureau of Yards and Docks of the Navy Department, for the construction of a \$500,000 emergency hospital at Newport News, Va., the work on which is to begin at once.

Dr. and Mrs. L. H. Lewis,

Of Elkton, Va., were visitors at the home of Dr. Lewis' brother, in Clifton Forge, Va., last month.

Dr. R. L. Hudgins,

Of Farmville, Va., was a visitor in Chase City, Va., in May.

Large Number of Hospital Beds Provided.

One hundred thousand hospital beds will be available for American soldiers when the construction program now in progress under the supervision of the Army Medical Corps is completed. Late reports show that about 63,000 beds are now ready in National Army and National Guard base hospitals, embarkation, military and civilian hospitals included in the institutions in charge of the corps.

Visiting Staff at Virginia Hospital.

Upon nomination of the Executive Committee of the Medical College of Virginia, the Administrative Board has appointed the following to serve as physicians on the visiting staff of Virginia Hospital, this city: Drs. Robert C. Bryan, Douglas Vander Hoof, Manfred Call, A. M. Willis, J. W. Henson, A. G. Brown, Jr., and Joseph Bear. Drs. Stuart Michaux and B. H. Gray will also serve during the absence from the city of Drs. W. Lowndes Peple and Greer Baughman.

Dr. and Mrs. Hugh J. Hagan,

Formerly of Roanoke, Va., and their small son, are now at Vail, N. J., where Capt. Hagan is stationed at Camp Alfred as post surgeon.

Capt. Wyndham Blanton, M. C., U. S. A.,

Of Camp Custer, and his wife, have been on a recent visit to Capt. Blanton's parents, Dr. and Mrs. C. A. Blanton, of this city.

Free Inoculation Against Typhoid.

Although the vaccine may be obtained of druggists and administered by family physicians, this city, as well as a number of other places, will supply typhoid vaccine free upon application, and also has doctors on hand at certain hours each day to administer the vaccine when desired.

Dr. James R. Sterrett,

West Durham, N. C., was called to Louisa, Va., last month, on account of the illness of his sister, who is now much improved.

Green Band for Whooping Cough.

The Health Department has authorized the

wearing of green arm-bands by children with whooping cough, with a view to preventing the spread of the disease. This ruling was made with a view to permitting children with the disease to get the fresh air. Although our City Health Department has never placarded houses for whooping cough, rigid quarantine will now be instituted in cases of refusal to use the green ribbons. Forty-four babies died in Richmond last year from this one disease, and forty-six the previous year. It is hoped enforcement of this "green ribbon" law will reduce the city's death rate for whooping cough.

Morehead City, N. C., to Have Hospital.

The contract for the immediate erection of the Morehead City General Hospital was let in May, and it is expected that the hospital will be completed and ready for occupancy by early fall. The building is to be 90x100 feet, and will cost \$30,000 without equipment.

Dr. Henry A. Christian,

A native of Lynchburg, this State, but now of Boston, was recently elected president of the American Society for Clinical Investigation, at its convention in Atlantic City.

Dr. and Mrs. W. W. Vest,

Of Clarksville, Va., were called to Mt. Regis Sanatorium, Salem, Va., in May, by the illness of a member of their family.

Married—

Dr. Rees Bowen Gillespie, Tazewell, Va., and Miss Charlotte Landon Henry, Roanoke, Va., May 24. They will make their home at Jewell Ridge, Va.

Lt. Hunter McGuire Doles, M. O. R. C., son of Dr. J. T. Doles, of Ivor, Va., and Miss Morton Wortham, Norfolk, Va., May 8. Dr. Doles is at present stationed at Ft. Oglethorpe, Ga.

Dr. Casper Walker Jennings, Greensboro, N. C., and Miss Marjorie Lea, Richmond, May 25.

Dr. Eugene R. Hardin and Miss Ruby Goode, both of Clinton, N. C., May 14. Dr. Hardin, who is now a lieutenant in the medical reserve corps of the Army, was for several years prior to his entering the service, health officer of Sampson County, North Carolina.

Dr. Maury B. Linkous, Cambria, Va., and Miss Virginia Kirk, of Oklahoma, in Blacksburg, Va., June 2.

Hook Worm in Camp.

It is stated by army surgeons that twenty per cent. of the drafted men received at Camp Sevier, Greenville, S. C., are affected with hook worm. Numerous cases are being treated and all show improvement. In some companies, as many as sixty men are being treated.

War-Time Social Work.

To enable women who want to help win the war to qualify themselves in the briefest period of time for this war service at home, the Department of Civilian Relief of the Red Cross and the School of Social Work and Public Health, in Richmond, have organized a summer course of six weeks in Emergency Social Service, to begin June 24. New problems have arisen as a result of the war and some of the old problems have become more serious. Courses will be offered in this summer course in: (1) Red Cross Home Service; (2) Juvenile Delinquency in war time; (3) Protective work for girls; (4) Social Service in war time, and (5) Technique of social case work.

Full information will be sent upon request of the director, Dr. H. H. Hibbs, Jr., 1112 Capitol Street, Richmond.

The Southwest Virginia Medical Society

Will hold its regular meeting in Roanoke, June 26 and 27. An interesting scientific program has been prepared and several matters of especial interest will be discussed, including the subject of consolidation of County Societies with the Southwest Society, according to permission granted by the State Society. This is also the meeting for the election of officers. Dr. W. R. Cushing, Dublin, is president, and Dr. S. W. Dickinson, Marion, secretary.

The Piedmont Sanatorium,

Near Burkeville, Va., for colored tuberculous patients, was opened less than two months ago with a capacity of forty beds. The first of this month there were twenty-six patients already at the Sanatorium, eight more had been called in, and four beds were reserved for incipient cases, which were to enter during June. It is expected that a second pavilion, with a capacity of forty additional beds, will be opened by July 15. At least six of the patients at the Sanatorium are having their expenses paid out of the Red Cross Seal fund, raised by the annual sale of stamps.

Smallpox In Several Sections Of State.

The fact that smallpox has been reported from several sections of the State recently, would seem to indicate that many people are still careless regarding vaccination and revaccination. The present disease does not seem to be epidemic and is mild in character, but every case shows a criminal carelessness, since vaccination gives immunity. A word from the doctors to their patients might prove of value to health conditions.

Dr. John A. Davis,

Of Bedford City, Va., is now located at Mammoth, W. Va., to practice.

The Southside Virginia Medical Association,

Of which Dr. P. A. Irving, Farmville, is president, and Dr. R. L. Raiford, Sedley, secretary-treasurer, is to hold its regular quarterly meeting in Suffolk, Tuesday, June 18.

Dr. Cornelius B. Courtney,

Who has been connected with the Virginia State Board of Health for the past two years, but who was commissioned first lieutenant in the medical reserve corps last February, was ordered to New York the latter part of May, for a special course in laboratory work at the Rockefeller Institute.

Dr. W. A. Brumfield,

Assistant Commissioner of Health of Virginia, has been appointed an assistant surgeon in the U. S. Public Health Service. His work will have to do with one of the big health problems brought to the fore by the war—the control of venereal diseases in Virginia. He will continue to have headquarters in this city, but will work in active co-operation with health authorities of the State along the special line of his new service.

Dr. Brumfield is the tenth physician taken from the health department by the war, and his will make the twenty-fifth star on the service flag of the State Health Department.

Dr. E. Tribble Gatewood,

Of New York, was a recent visitor in this city. Dr. Gatewood has just completed a two and a half year internship in the Eye, Ear, Nose and Throat Department of the New York Post-Graduate Hospital. He was formerly located at Toano, Va.

Building At S. C. State Hospital Destroyed.

Sixteen male patients at the State Hospital for Insane, Columbia, S. C., perished in a fire which destroyed a one-story frame structure on the hospital grounds early on the morning of May 29. All patients in the ward, forty-five in number, were taken out safely, but those lost rushed back in the building despite the efforts of the nurses and attendants.

Dr. and Mrs. B. Roscoe Gary,

Of Newport News, Va., attended the finals of Westhampton College, this city, the latter part of May, to be present on the occasion of the graduation of their daughter.

Dr. Robert C. Bryan,

Of this city, gave an address at Fork Union, Va., the latter part of May, in behalf of the Red Cross.

Department Store Building For Hospital.

Medical Record states that Government representatives have inspected the store building formerly occupied by Siegel-Cooper Company and later by the Greenhut Company on Sixth Avenue, between 18th and 19th Streets, New York, with a view to fitting it up as a base hospital for invalid soldiers. It can be made to accommodate 3000 soldiers.

Many Wounded Americans Will Recover.

In the opinion of American Army surgeons, ninety out of every hundred American soldiers wounded in the Catigny battle will recover. The wounded were brought from the fighting line without delay when the battle was at its worst.

Sick and wounded soldiers of the American expeditionary forces are beginning to be returned to this country to be cared for in various army hospitals. For the week ending May 24, sixteen arrived, and for the week ending May 31, one hundred and eighty-four sick and wounded were landed in this country.

Dietary To Meet War Conditions For Hospitals For Insane.

Dr. H. J. Sommer, Superintendent of the Blair County Hospital for Insane at Hollidaysburg, Pa., and his assistant, Dr. P. Saha, have sent out a brochure telling how they are conserving in the food needed for our soldiers and allies, by substituting more of the foods

that cannot be shipped or are not so much needed abroad. This was done voluntarily as hospitals were exempt from the rulings promulgated by the food administration. About 300 persons are fed each day at this hospital. With the re-arrangement of menus, it is estimated that 90 barrels of wheat flour per year are saved for the food administration. The menus as given are varied and attractive and have been worked out according to their caloric value. It is stated that none of the patients are under-fed—rather they are over-fed. We feel sure that Dr. Sommer would be glad to communicate with any hospitals interested in his work.

Dr. and Mrs. E. C. Fisher

Have returned to their home in this city, after spending sometime in New York and Atlantic City.

Dr. Clifton M. Miller,

Of this city, was elected one of the vice-presidents of the American Laryngological, Rhinological and Otological Society, at its meeting in Atlantic City, the last day of May. This election also makes him chairman of the Southern section of the Society.

N. C. State Health Officers' Association.

Dr. J. R. McCracken, Waynesville, and Dr. George M. Cooper, Raleigh, were elected president and secretary respectively of the above Association at its recent meeting in Pinehurst.

Dr. Lewis E. Harvie,

A widely known doctor of this State, has been critically ill with heart trouble at his home in Danville, for several weeks.

Screening Urged By Health Authorities.

The State Health Department is again urging not only the adoption of adequate measures for the sanitary disposition of waste matter about homes, but also the effective screening of the home to lessen the incidence of insect-borne diseases.

Dr. Charles L. Summers,

Until recently of Winston-Salem, N. C., has been elected Professor of Clinical Pediatrics at the University of Maryland, School of Medicine, Baltimore.

Dr. Algernon Coolidge

Has been made acting dean of the Harvard Graduate School of Medicine, to succeed Dr. A. S. Begg, who is in army service.

Dr. G. A. Wright,

Chilhowie, Va., has sold his property and location to a Dr. Jones, of North Carolina, and will move to Marion, Va., as an assistant physician at Southwestern State Hospital.

Dr. William Karp,

Formerly of Portsmouth, Va., but recently of this city, has received a commission as first lieutenant in the Medical Reserve Corps, and been sent to Camp Meade, near Baltimore.

Major Herbert C. Mallory,

Formerly of Greenbackville, Va., post surgeon and ranking medical officer at Park Field, near Memphis, Tenn., since its establishment, has been transferred to Mineola, L. I., for special work in the research laboratories. At the outbreak of the war, Maj. Mallory was assigned to duty at Park Field to superintend the sanitary arrangements, and was promoted from the rank of lieutenant to that of major during his service at this post.

Medical Lectures At Summer Normals.

The State Department of Health has arranged to have medical instruction given at each of the twenty State summer normal schools this year, by qualified lecturers, who will give special attention to preventive medicine and medical inspection of school children. Dr. R. W. Garnett, of the staff of the Department, will participate in this branch of the work. Dr. Paul B. Barringer, of Charlottesville, and Dr. Mary Evelyn Brydon, of Farmville, have tendered their services and have been assigned to normals. Other appointments will be made later. This course is to be given with the idea of impressing upon teachers in attendance the value and need of disease prevention and the building up of a strong public sentiment in every community for the eradication of the sources and causes of disease.

Dr. William D. Scott, Jr.,

Of Curtis Bay, Baltimore, Md., a native of Fredericksburg, Va., has been appointed captain in the medical reserve corps, U. S. A., and ordered to duty the latter part of May.

Dr. John Beverley Pollard, U. S. N.,

Accompanied by his wife and little daughter, have been visiting at the home of Mrs. Pollard's mother, near Annapolis, Md.

Wanted—Young physician, honest, industrious and well-bred, to act as assistant to middle aged general practitioner in a Southern California coast town, where the climate is delightful the year round, the people cultivated and prospects for advancement excellent. Address No. 1, care this journal, stating age, weight, college and year of graduation, experience, if any, and salary expected.—(Adv.)

Obituary Record.

Dr. John Henry Hinchman,

A prominent and well known physician of this city, died at his home May 31, 1918, aged about sixty-three years. He had been ill since early in April, suffering from a general breakdown due to overwork. To the time of his illness, Dr. Hinchman had served as medical examiner on a local draft board. He received his medical education at the Medical College of Virginia, from which he graduated in 1879. He was a member of the Medical Society of Virginia, the American Medical Association, and a number of fraternal and other societies. He is survived by his widow, a daughter and four sons. Two of his sons are already practising physicians and another is a student in medicine.

Dr. Alan B. Cleborne,

Past assistant surgeon of the U. S. Marine Hospital at Savannah, Ga., died suddenly May 13, while performing an operation. He was a native of Richmond, and was educated at the University of Virginia, from which he graduated in medicine in 1902.

Dr. Roger Martin,

Of Worsham, Va. died the early part of May from pneumonia, aged 56 years. He had been in bad health for about ten years. Dr. Martin studied medicine at the College of Physicians and Surgeons, Baltimore, from which he graduated in 1888. He was a member of the Medical Society of Virginia.

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Original Communications.

THE DIGESTIVE SYSTEM IN PULMONARY TUBERCULOSIS.*

By EVERETT E. WATSON, M. D., Salem, Va.
Physician in Charge, Mount Regis Sanatorium.

It is with considerable hesitation and a proper sense of humility that I undertake such an important and difficult phase of tuberculosis—the digestive system.

In the light of modern teaching we can no longer wax eloquent on the advantages of certain climates as a "cure-all" for tuberculosis, since it has been conclusively proven that the mountains of our own state possess climatic virtues not excelled by the dry, arid states of the great Southwest; the dizzy heights of the vast mountains of Colorado, or the "Land of the Sky," with its zephyrs "pregnant with the balsamic vapors of the pine." It is now universally accepted that our most important therapeutic measures in the treatment of tuberculosis are rest, fresh air and good food, but I fear that in our enthusiasm over the efficacy of rest and fresh air, we are prone to skip over the last of this triad, good food, with the simple advice, "eat all you can stuff, and keep the bowels open." I do not wish to underestimate the value of rest and fresh air, but certainly without a proper functioning digestive system in the treatment of tuberculosis, all else avails nothing.

The fact that the onset of active pulmonary tuberculosis is accompanied frequently by symptoms referable only to the gastro-intestinal system is frequently overlooked. Loss of

appetite, nausea, acid eructation and pain or sense of fullness in the epigastrium, are not infrequently the only symptoms which the patient may complain of until the pulmonary lesion has become well advanced. In Cabot's series of cases, of those applying for treatment for dyspepsia, pulmonary tuberculosis was the second most frequent diagnosis; to quote Cabot: "Unexplained indigestion coming on in a person previously healthy, in a person who has not changed his diet or his work, who is not anemic or nephritic, or overwhelmed by mental torture or worry, should be suspected of being due to tuberculosis. It is surprising how many cases of unexplained dyspepsia will yield to treatment directed toward tuberculosis and to no other treatment." This can be confirmed by the case histories in any tuberculosis sanatorium. I recall one case who was treated for two years for stomach trouble and had never had his chest examined until a few days prior to admission into the sanatorium. He had high fever, anorexia, acid eructation, coated tongue, and later diarrhea, but no cough and expectoration. Examination of chest revealed hopelessly advanced lesions in both lungs, and he was sent home, where he died two weeks later. We have had a great many cases that have been referred to stomach specialists who have made the diagnosis of tuberculosis.

Symptoms referable to the gastro-intestinal tract are present at some time in the course of the disease in practically every patient, and the prevention and alleviation of these symptoms is probably the greatest task we have to face. I believe that eighty-five per cent. of the complaints which are met in the daily

*Read before the forty-eighth annual meeting of the Medical Society of Virginia, at Roanoke, October 30-November 2, 1917.

rounds at the average tuberculosis sanatorium, are results of gastro-intestinal derangements. The vast majority of these possibly could have been avoided, had the patient, early in the course of the disease, been advised as to the proper care of his digestive system. I will not attempt to go at any length into the numerous organic and reflex disturbances, but will rather plead for a more rational and commonsense care of the gastro-intestinal tract, and particularly protest against the absurd and pernicious custom of forced feeding, which, if persisted in sufficiently long, will, in practically every instance, result disastrously.

Many cases of pulmonary tuberculosis never have any digestive derangements, but as the disease advances, pathological changes are usually present. As a result of the lessened depth of inspiration and diminished diaphragmatic excursion, the blood-flow is retarded through all of the abdominal organs, and a general blood and lymph stasis is favored. This combined with the usual weakened heart action causes a general passive congestion of the alimentary tract and interferes with the secretory functions of the digestive glands, with the resulting symptoms of "dyspepsia."

Advanced tuberculosis is frequently also complicated by a general visceroptosis and often atony and dilatation of stomach and intestines, this resulting from malnutrition, general weakening of the abdominal muscles, cough, and the negative pressure due to waste of the intra-abdominal fat and tissue-supports of the abdominal organs.

The question of gastric secretion and motility in the various stages of tuberculosis has been the object of much study, and it is now a well established fact that in the majority of early cases there is hyperacidity and hypermotility, while in the advanced cases the reverse is true. The so-called "nervous indigestion," i. e., acid eructation, nausea, and often vomiting—which we so frequently meet in early tuberculosis, is often due to hyperacidity and hypermotility, resulting from increased vagus-tone, which in turn is caused by irritation of the vagus nerve-endings in the parenchyma of the lung at the site of the lesions. This is usually accompanied by exaggerated tonus and hypermotility on the part of the intestines with resulting spastic constipation. In this class of cases, aside from the usual dietetic treatment and neutralization of acids, we find that atro-

pine in 1-200 to 1-100 gr. doses, one-half hour before meals, counteracts this vagus tonus and gives gratifying results.

In the advanced stages of the disease there is often marked toxemia. The toxemia centrally stimulates the sympathetics and expresses itself in inhibition of action, i. e., diminishes salivary, gastric, hepatic and pancreatic secretions; relaxes the gastric and intestinal walls, and decreases motility, resulting in such symptoms as poor appetite, coated tongue, hypo-acidity, and atonic constipation. The simple prescription which has been most useful to me in the poor appetite and indigestion of advanced tuberculosis is *nux vomica* and a bitter tonic before meals, and hydrochloric acid and pepsin after meals.

Depressive mental states, pain, worry, disappointments, etc., cause this same central stimulation of sympathetics; thus, the importance of harmless diversion and keeping the patient happy. In many far-advanced cases the stimulation of the sympathetics by toxemia, mental depression, etc., is evenly counterbalanced by peripheral irritation of the vagus in the lung parenchyma, thus maintaining equilibrium with no resulting digestive disturbances.

Since acute toxemia from over-exercise or renewed activity causes the same train of symptoms as the acute gastro-intestinal upset, which we erroneously call "biliousness," and since patients blame all symptoms on either a cold or biliousness—never tuberculosis—frequently, if not very careful, we abuse the gastro-intestinal tract with strong purgatives and other medicines, when it is only necessary to put the patient to bed in the open air, which will reduce the toxemia, and the symptoms promptly disappear.

Every patient should be impressed with the importance of oral hygiene. The teeth and gums should be looked after by a competent dentist. A good tooth paste and an alkaline, antiseptic mouth-wash should be used diligently. The dangers of swallowing sputum should be explained, and it is surprising how many patients do this, either from thoughtlessness or a natural abhorrence to spitting.

The majority of patients applying for sanatorium treatment are constipated. This is occasionally the result of disturbance of equilibrium of the divisions of the autonomic nervous system, namely, the sympathetic and vagus, as above described, with resulting either atonic

or spastic constipation; occasionally it may be due to visceroptosis or other pathological changes; but most frequently it follows faulty habits and misuses of laxatives. Every patient who has, resulting from activity of the tuberculous focus, symptoms of toxemia—fever, general malaise, anorexia, coated tongue, etc.—immediately blames the gastrointestinal tract and promptly takes a laxative. Even when actually constipated, the use of laxative medicines only exaggerates the condition which we are trying to combat. I have rarely seen a case which could not, in a short time, be corrected by abstinence from all laxatives except an occasional dose of mineral oil, by regular habits, and by drinking large amounts of water.

Since tuberculosis, particularly advanced tuberculosis, is, as the name "consumption" implies, a disease attended by tissue waste, the question of nutrition has always been considered one of paramount importance in the treatment of this malady. This for many years led the medical profession into the unfortunate error of forced feeding. To quote from a paper by Pottenger, read in 1910 (seven years ago): "It is noticed as far back as our records go, that food has borne an important relationship to cure in tuberculosis. The idea forced itself upon the medical profession that nourishment was one of the greatest factors, because of the fact that the tuberculosis patient in the advanced stage is nearly always poorly nourished. Therefore, it was believed that tuberculosis should be treated by great quantities of food: consequently, we had the era of forced feeding. Besides three meals a day they were encouraged to take large quantities of milk and eggs, in the hope that putting on fat was curing tuberculosis. For a number of years this method held sway, but finally the effect of such a course upon the intestinal tract, the liver, and the kidneys, has made itself felt, and the medical profession is forced to abandon this as another delusion in the cure of this disease and return to rational feeding."

In 1912, L. Brown said: "Given a patient without fever and without serious complications, the scales are the best criterion as to diet. I know of no better simile than the gasoline engine. The efficiency of the engine is the work it can do on the road. Give it too much gas and the combustion is incomplete, the spark plugs become dirty, the cylinders

coated with carbon and the efficiency is greatly reduced. In other words, the engine does far better work when supplied with only enough gas to produce the best results. So, too, with the tuberculosis patient. Give him what he can use, but reduce his diet to the lowest point at which he will gain the required amount of weight. We should try to bring a patient up to or slightly beyond his normal weight, but not by too rapid gains, or too forced feeding, which but too often defeats its very purpose. We should be satisfied with a gain of a pound a week and a digestive system in fine order. Now, when the required weight is attained, let the diet be reduced to the lowest point which will give satisfaction at the table and sustain the weight. This reduces to a minimum the quantity of waste which the excretory organs must take care of, makes out of many patients very different individuals and reduces greatly gastro-intestinal disturbances."

To again quote Pottenger: "It has been found that tuberculous patients can be made fat by giving them large quantities of food. This increase in weight was looked upon as a great achievement, but experience has proven that there is a great difference between enormous gains in weight and nutrition. It signifies very little to the patient suffering from tuberculosis that, by ingesting enormous quantities of food, he is able to make a large increase in his body weight, but it signifies much, if by eating moderate quantities of food, quantities such as would be employed by a person in normal health, he is able to put on weight. The latter is nutrition; the former fat. Nutrition must be looked upon as strength, fat as useless and harmful weight. Future medicine will look back upon the custom of forced feeding as one of the strangest vagaries of medical practice."

Thus we see that for eight or ten years the leaders in the field of tuberculosis have been doing all in their power to impress the medical profession with the dangers of superalimentation. That their teaching has borne fruit, to a certain extent, is evident, since all of us glibly state that the day of forced feeding is over. That we do not grasp fully the real import of their teaching is even more evident, from the fact that such a vast number of patients applying for sanatorium treatment in the various tuberculosis resorts, have been advised to take all the eggs and drink all the

milk they possibly can, at intervals between meals. This is a rule without the use of the scales to determine whether they will gain on a rational diet. Often what the patient needs most is a proper regime of rest and out-door life, which is frequently followed by rapid gains in weight, when they had previously lost persistently, though they had consumed enormous quantities of nourishment.

A patient should be given only three well-balanced meals a day with a glass of milk with each meal. He should eat of that only what he can enjoy. Under proper conditions the majority of favorable cases will gain to or slightly above their normal weight. Generally speaking, a patient who cannot get to the point where he can eat and enjoy a normal meal, must be regarded as unfavorable for arrestment of the disease. In those cases which, though at absolute rest, lose in weight, we frequently resort to nourishment in the form of a glass of milk between meals. When a patient gains to or slightly above normal, he should discontinue milk altogether and eat as little as possible and at the same time maintain his weight. By so doing, in the event of little flare-ups and intercurrent illnesses, he will have milk and a good digestion to fall back on.

In conclusion, I will merely emphasize the following salient points:

1. Every case of unexplained digestive disturbance, particularly if it resist the ordinary measures in treatment, should warrant a thorough examination of the lungs for tuberculosis.

2. Hyperacidity and hypermotility is the rule in early tuberculosis; hypoacidity and lessened motility in advanced.

3. Don't overlook the importance of the autonomic nervous system in tuberculosis, particularly the effect upon the appetite and digestive functions of the emotions—worry, pain, despondency, disappointment, etc., as manifested through sympathetic stimulation.

4. "It is not how much we eat, but how well we assimilate what we do eat that counts." A proper regime of rest and out-door life, combined with a good mental attitude, is our best means of enhancing assimilation. The object of dietetic treatment is to regain lost weight, but not to make the patient "a flabby, breathless mass of inert fat."

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DISCUSSION.

Dr. L. G. Pedigo, Roanoke.—Some years ago an English statesman announced this opinion: that the finest government was simply a machine for registering external pressure. A few years ago in a meeting of this Society I got the impression that the stomach was simply placed in the human organ for registering symptoms of physical affections of the other organs.

I want to commend this paper as very conservative and well-balanced. I can take as long as the writer did reading it in summing up the points, but I shall hurry. His conclusion as to hyperacidity and hypoacidity coincides with my own results in testing out cases in a nearby sanatorium. I found, of course, as a doctor would naturally, exceptions to the rule. I found hyperacidity in them early, and the hypoacidity later. I might suggest that if the hyperacidity were rationally treated in the beginning, the other would be less aggravated later on.

I was treating a physician a few years ago and found in the early stages of tuberculosis he had—*, and he was by many years younger than I was. I found his arteries were hardened. He told me that a few years ago he had tried to drink up all the whiskey in the county, but found he couldn't. That accounted for the—*. You will frequently find that in the moderate use of alcohol the doctor's idea about the effect of these conditions was sound.

You will find —* of diarrhœa and constipation. When the intestine has lost the —* you will find these hyperacidity conditions and the hypoacidity conditions, and the diarrhœa may be corrected by generous doses of —* acid, and a good preparation of pepsin half an hour after a meal.

I would call your attention to one method of treatment I believe wasn't noticed, and that is, the hysterical conditions in the use of nitrate of silver. If you can use the tube, beginning with nitrate of silver, beginning with two grains to the pint, after the stomach is washed clean about three times a week, that is a most excellent treatment.

These stomach troubles are a part of the symptoms and etiology and treatment in tuberculosis cases. I could consume ten minutes—as easy as five—but I will stop here.

Dr. H. E. Jones, Roanoke.—Dr. Watson and Dr. Taliaferro both had excellent papers, and it is well to have such good papers. Dr. Watson's paper is 99 per cent correct, but he is off in respect to one thing. That is on value of surplus fat in these cases. It has been observed that men making long fasts, the first thing that goes is superfluous fat tissue, which is stored food. When this is gone the next thing that begins to go is the muscular system. When that has disappeared the nervous system goes and death ensues. Now, having found out that athletes have to undergo strenuous exercise for two or three hours at a time, these athletes who are finally drawn have got nothing but skin, muscle and the nervous system and other organs. They become exhausted in an earlier period than

*Manuscript copy sent author for correction, etc., had not been returned at time of going to press.

the athletes who have some superfluous fat. They claim that a man in two hours' real strenuous exercise without let-up will burn up ten or fifteen pounds of fat. If he didn't have that fat he would burn up the muscle and as soon as the muscle becomes absorbed he gets weak.

Take a tubercular patient and if he is not getting nourishment properly he is living on his muscle and he is weak and feeble and he can hardly get about. If there is any way on God's earth to put surplus fat on those patients, they ought to have it as a reserve, if for nothing else. In the summer and fall a bear will eat all he can get and lie down and sleep all the winter and will not starve to death. If you leave your tubercular subjects with nothing but skin on them they will not live long.

Dr. Ralph W. Brown, Roanoke.—Mr. President: Just a word. It wasn't my privilege to hear all of these papers, but I have been in practice long enough to see the rise and fall of forced feeding in tuberculosis. My idea is this: if you have a tubercular patient who is under-weight, worn out, I think it is your duty, with the proper conservatism, to feed that patient and give him an opportunity to reach its normal weight, and there is then no object in attempting to push that beyond that point.

It has been my policy in treating these cases, whether under-weight, normal or over-weight, whenever food disagrees with them I leave it off for a time. I do exactly as I would any other trouble—give the stomach two or three days' rest on almost no diet, and then gradually as you would to a diabetic patient, gradually go back to your diet. There is evidently a happy medium in treating a tubercular patient and this is to be borne in mind, that the great majority of patients treated by general practitioners who haven't always a laboratory at hand, cannot always know whether he has hyp acidity or hyperacidity; therefore, if you will use common sense, watch the patient, I believe you can in a practical way carry out the point. In other words, my belief is to use good horse-sense and if you do that you can feed your patients properly and let them reach a point when they have physical endurance and then, when they are going up hill, put on extra gas.

Dr. Taliaferro.—I would like to have just a few words. I enjoyed Dr. Watson's paper and think it is well prepared and well thought out, and his conclusions, I think, are right. As Dr. Brown said, we are just a little strong that way or this way and we want a happy medium, not over-feed and not under-feed, but use horse-sense. Treat the individual and not the disease.

I was very much struck with a patient who came to me one or two years ago. We had been speaking of digestive systems in tuberculosis. He thought he had liver troubles and had been treated for biliousness. He went to an osteopath who had some medical training in addition; he listened over the man's lungs and said, "You have a spot on your lung, and I would advise you to change climate after I give you 12 treatments; when I get through with you, you change your climate". This man had sense enough, when he found that out, not to take the 12 treatments, but went to a sanatorium. Not long ago one of the patients I found had been taking, instead of ordinarily five or six glasses of milk a day, twelve glasses. He thought if five glasses were good twelve would be better, and he got in such condition that it took two or three months to straighten him out.

I want to say, in case any of the gentlemen here want to put in an application up at the Sanatorium, I have some blanks here. We have a good long waiting list, but I have the blanks here.

Dr. Brown.—I would like to ask the Doctor a question: Do you prefer a patient absolutely thin, without surplus fat?

Dr. Taliaferro.—I would take one with a little surplus fat if I had the choice.

Dr. A. L. Tynes, of Staunton.—We have some visitors with us today: Dr. Samuel R. Holroyd, President-Elect of the Medical Society of West Virginia; and Dr. E. H. Thompson, of Bluefield, W. Va. I move that the courtesies of the floor be extended to these visiting gentlemen.

(The motion was duly seconded, stated and carried.)

The President.—We would be glad if these gentlemen will come forward so our members will know them when they see them, or if they will just rise.

Dr. E. H. Thompson, Bluefield, W. Va.—Mr. President, I am very glad, indeed, to be with your Society. I am sorry Dr. Holroyd isn't at present in the building. We have borrowed your men from time to time for our local Society and also for our State Society. The work which you are doing in this State is being heard of all over the United States. I want to congratulate you on your good work, and I thank you for the privilege of the floor and assure you we are glad to be with you and will be glad to have you come to our Society and our State meeting. I again thank you.

The President.—Is there any further discussion of Dr. Watson's paper? If not, we will hear from Dr. Watson in closing.

Dr. E. E. Watson, (in closing).—I thank the gentlemen for the very generous discussion. I am very much pleased with what Dr. Brown said. I think his idea is very rational and I do not think any of us are so far off that we cannot get together on this subject. I want to make myself clear on one point, and that is, I think we should try to get our patients up to a few pounds above normal weight; but we should not do it at a sacrifice of our gastro-intestinal tract. To give illustration: a patient came in the other day who weighed 100- $\frac{3}{4}$ pounds; she told me that 18 months ago after eight or ten months treatment she had gotten her weight up to 152 pounds. I asked her about her diet and found she had been taking raw eggs and milk and she was so fat she couldn't walk then. Now, what is the object in keeping on with that egg and milk diet? What occurred? At the end of eight months she had gastro-enteritis so bad that she was hopelessly sick; she is now running high fever, and weighs about 100- $\frac{3}{4}$ pounds.

Lots of the doctors haven't laboratory facilities, but all of them can have an ordinary pair of scales in the office, and if a patient, on a normal amount of food, by eating three rational well-balanced meals a day, can gain as much as one pound a week, what in the world is the use of making that patient take 18 raw eggs and 14 glasses of milk in 24 hours in order to get that patient to gain seven or eight pounds. If you get that gastro-intestinal upset, the patient will certainly go down; they lose that fat in a great deal less time than they gain it.

Do not forget that War Savings Stamps are not for children only. Most of the squandering is done by the grown-ups.

SOCIETY AILMENTS—SUGGESTIONS.*

By J. BEVERLY DeSHAZO, M. D., Ridgeway, Va.

One year ago our president in his address in Norfolk said there was something wrong with this society, interest was lost, the treasury depleted, less than one-third of the members paid their dues, and he appealed to the members to keep the Society from becoming moribund. As mute evidence of this, here is all that is left of the last meeting, a hundred page pamphlet smaller than many patent medicine almanacs.

In 1908, when the new constitution went into effect, the Society had over 1500 members who paid more than \$2,300, according to the records. After paying a legislative lobby, salaries, and publishing the transactions, there was nearly \$1,000 left in the treasury. At the same time there was no appeal necessary to rally the members to tattered standard, but every fellow was eager to attend the meetings and was a booster from the bottom of his heart for the Medical Society of Virginia. After nine years under this new constitution, with nominally over 1800 members, where is the vitality? What do we owe? What do we collect? Why does interest continue to wane? Let us spare ourselves the humiliating picture and find a speedy remedy for these self-inflicted ailments.

The late Grover Cleveland on one occasion said, "This is no theory but a condition that confronts us." Likewise, after all these years of trying apparently a beautiful theoretical constitution, an untenable condition confronts us and the question is, what ought to be done in this dilemma?

It is true under our old constitution, we had too much society politics; however, each one had an equal hand in it and the doctors enjoyed it. Why not give them a little of what they want and insure interest and enthusiasm?

In life's journey, when in the wrong road, the thing to do is to get back in the old one, proven in the school of experience, or a better one. The advocates of the new order admit, by attempting so many amendments, the failure of the new constitution, and so practically does nearly everybody else; therefore, is it not wise to return to the way of

equal rights to every member, and discard a theory that is top heavy, impracticable, and not in accord with Virginia ideals and traditions?

All just government certainly is derived from the consent of the governed. The trend of things political is to the primary, to the referendum, to magnify the importance of the individual. In other words, authority in all the leading nations of the world except Germany begins with the individual as the unit and goes upwards; not so in practice with this constitution but, instead the individual, the common members are not active in society affairs, but passive creatures. There is no wonder, then, that they jog along indifferent, losing interest, and often fail to attend the meetings. In fact, with so much widespread dissatisfaction, there are grave doubts for the future, and many, expecting a collapse, do not pay their dues to the treasurer.

The satisfied purchaser pays for his wares. The doctors of Virginia, or a great many of them, are dissatisfied and they will not pay for what they do not want. Do you blame them? The remedy is simple and self-evident. Change the constitution to a practical democracy, and do away with the new one that in effect, smacks of the ways of autocracy.

See how Councillors are elected in practice. The average physician does not care to lose, perhaps, two days, and to pay railroad fare and hotel bills to go to the meeting. The result is, the local doctors and a few railroad surgeons meet, and their nominee is no more a true representative of the district than if drawn by lot by the president. There is no condemnation of the men selected as a whole, but it is the *system* that makes it intolerable.

Likewise, to attend county society meetings entails long rides to many, not in a street car for a few minutes, but through disagreeable weather, mud and rain frequently, with the loss of a day or two each meeting, with the expenses attached. The result is a small meeting of local members with railroad surgeons. You readily see why many of the best physicians can rarely attend meetings; therefore, the county societies sicken insidiously, and nearly all are dead practically, except on

*Address delivered before the forty-eight annual meeting of the Medical Society of Virginia, at Roanoke, October 30-November 2, 1917.

paper, throughout almost the entire commonwealth.

The whole plan is too cumbersome. Think of the burden of twenty officers, over half from the congressional districts, farcically elected, some not even that way, but often appointed by the president, and on top of this, nearly a hundred county society treasurers to collect the members fees. These society treasurers have their hands full collecting their own bills; why expect them to collect for the State Society under such circumstances? Is there any surprise that financial affairs are chaotic with such an unbusiness-like constitution, a real political monstrosity? Formerly one treasurer collected sufficient money. Why not resume the method that will keep the Society from inevitable bankruptcy?

With this unfortunate condition presented truthfully, you face a stern reality, that the county society unit plan for membership in this society is a monstrous failure without a single ray of hope for redemption. Furthermore, the theory of a great political machine like the American Medical Association, that might be manipulated easily by a few shrewd doctors, cannot, and should never be popular in Virginia.

The average doctor is so accustomed to take for his lot what is handed him, that to kick against a real wrong is not the rule. However, not all of us are so constituted. Seventeen years ago at our Charlottesville meeting, I registered a kick against the license tax on doctors and for eight years, as chairman of the legislative committee of the society, I continued the kicking and but for the opposition of a few wilful doctors in and around Richmond, who wanted something else worse, the license tax would have been repealed five years sooner than it was. Those kicks in opposition required five years more work by our honored president, to complete the work that righted the great wrong done the physicians of this State for more than fifty years.

Again, I am here to protest against a system equally as wrong in practice as was that odious tax, because it works unfairly, leaves room for boss rule, and bids fair, if not soon annulled, to cripple seriously or rend in twain our grand old Medical Society.

The new constitution attempts to do its

work from top downwards, Prussian like. It says you *must* be a member of a county society to join the State Society. You *must* let the Council transact the business, elect the officers and fix the compensations, and if you wish to change the constitution, the Council must say so, or, if you are not a giant kicker, an orator, and an expert parliamentarian, competent to combat the opposition in *five minutes*, you may never get an amendment outside of a revolution on the floor.

By right of inheritance, Virginia doctors do not have to do anything they do not wish to do to join anything. Are they not free men under the law, as well as in any medical society? Why try to drive them? They will become members of county societies if they wish. There never was a collar big enough to go around their necks to lead them anywhere! But, on the other hand, let us by all means curtail this semblance of dictatorial power, or everlasting chaos will continue to reign supreme and blight our meetings.

What is the logical solution? Return to democratic simplicity, to the constitution in force ten years ago,—with two radical departures. First, set apart one continuous session of the Society on the third day at one o'clock, hold the elections, and transact all business affairs by the Society as a whole. Next, put both salaried officers, treasurer and secretary, on a per cent basis of gross collections. This will replete the treasury and guarantee popular administrations.

Finally, by abolishing the county society as the unit and making the individual doctor the unit, the Germanic principle of government just now so unpopular throughout the world, will be dealt a death blow right at home. Why send a great army to France to fight against a system, when we keep a miniature one, although benignly administered by our friends here in the Medical Society of Virginia?

This evil has been tolerated long enough; the hour for action is coming,—is already here; the voice of our departed society fathers says "halt", the sacred rights of Virginia citizens command "about face," and for the sake of justice, harmony and prosperity, let me appeal to you to return to the constitution of 1907, with suggested amendments, and re-

store equal rights to every member under all circumstances, and we can make this Society as glorious in the future as in the past, a beacon light to others, to guide them from every form of autocracy, and thus keep Virginia forever in the medical as in the historical world, the brightest star in the constitution of states.

DISCUSSION.

Dr. H. E. Jones, Roanoke.—I would like to ask the Doctor how you would go about to make this change?

Dr. DeShazo.—Doctor, the question comes up tomorrow evening when the Executive Council makes its report. I made my remarks in order to let it soak in so we will all be ready to substitute the old constitution in place of the new.

The President.—The paper is now open for discussion, gentlemen.

Dr. J. B. Jones, Petersburg.—Mr. President, I have no idea of speaking to this paper at all; I haven't thought about it. I have been with the Society long enough to have worked under the old, as well as the new, constitution. I think this is a matter we should not pass over lightly. There are some points about the Doctor's discussion that touched me very forcibly. The question is, are we working for the maintenance of the Medical Society of Virginia primarily? or, Are we, as doctors, working for the elevation of the standard of the profession, of the individual member of the profession in the State of Virginia, and not for the maintenance of the Medical Society of Virginia, which we all love? The question is, "Are we a better body of medical men, better able to treat the sick and cure the wounded under the present constitution than under the old constitution; are we better doctors and not a better Medical Society of Virginia"? I believe every man in here, when he attends his county meetings and is brought in touch with his fellow-member and suggests ideas, as we can all do under the present constitution, that we are all very greatly benefited. To my mind, I believe under the present arrangements with the monthly meetings we have better doctors. It may be we haven't as strong a central organization. But whose fault is it? I cannot see how the Doctor says that everything originates at the top. If that is so, it is the fault of the bottom. It is in the hands of the County Society to take whatever action they see fit. I should hate to see the Society go back to the old constitution. I love the Society but I love to be brought in contact with the county members—my own local—in person, and here I will say that I think the locality is the place to determine the eligibility of each member of this body. The Society, meeting here, doesn't know about the eligibility of A, B or C in the backwoods, whereas his brother does know, and I should hate to see us go back to where we were ten years ago.

The President.—Is there any further discussion?

Dr. W. H. Ribble, Wytheville.—Up in our section of the State we tried it; organized, had one meeting, and from Roanoke west I think I heard of one or two who didn't consider themselves dead, but there wasn't a county society in active existence. If they would meet and exchange ideas it certainly would be profitable and would do some good, but we haven't got the county society. And I do not believe, unless an organizer goes around and keeps

them together that works it up, that we will have good county societies, or get any good out of it.

The President.—Is there any further discussion?

Dr. DeShazo.—Mr. President. I made no attack on the county societies. My remarks were simply this; We had good county societies before this plan was adopted, and I hope we will keep having them. For instance, the Southside was good before, and I hear that Augusta has a good one, but when we create an artificial form of government on paper and attempt to get the doctors, scattered throughout the country, together we attempt an impossibility. We are simply fooling ourselves. All will admit the county societies are good. The city doctors don't understand why the county doctors cannot get together, but they do not. They are widely scattered, and are the worst people to notice little things and keep apart you ever saw, but when we have a State meeting and then the petty jealousies are left at home, every member of the State Society is on an equal footing, he enjoys coming to the meeting; he has things to say and he says them, and loves to go to the State Society meeting, but when you base this whole thing on the county society and attempt to create 100 county societies in the State, it is a physical impossibility. Why fool ourselves any longer? That is why I appeal to the Society to look the cold facts in the face. Facts are stubborn things. As long as we had the old organization we had prosperity; all the papers were published in book form and every country doctor you saw was anxious to go to the Society meetings and every one paid up his dues and was boosting and hollering "Hurrah" for the medical Society. Have you heard that lately. I asked one old man "Are you going to the Society" and he said, "That has gone to the bad; it is all cut and dried and everything is done behind curtains; I do not care about going". The thing to do is to make it a popular Society.

ANO-RECTAL SURGERY SIMPLIFIED UNDER LOCAL ANESTHESIA.*

By CHAS. A. SAUNDERS, M. D., Norfolk, Va.

In examining a patient suffering from ano-rectal diseases, we should proceed very slowly and easily, seek to get his confidence, and let him tell his ailments in his own way, thus putting him at ease. Have him private, well protected by sheets, and not exposed any more than is absolutely necessary for examination which can then generally be made very satisfactorily.

Some physicians continue to base their diagnosis, usually "piles," upon the finding of blood upon the shirt, or the patient's statement that he has pain about the rectum. There is no excuse, however, for not diagnosing ano-rectal affections today, because they can be directly inspected through the proctoscope and sigmoidoscope, the character of the feces can be accurately determined by chemic, microscopic and macroscopic examination and the extent

*Read before the Southside Virginia Medical Association, at Crewe, Va., March 12, 1918.

and connection with neighboring organs can be defined by digital exploration and bimanual palpation.

Improved diagnostic technic, largely brought about by proctologists, has also been of great assistance in clearing up the etiology and pathology of many obscure recto-colonic diseases.

With the patients in Sims', the dorsal, or the knee-shoulder position, all three of which should often be resorted to, and with a good head-light, protoscope and sigmoidoscope, one should find out quite a good deal—practically all that is necessary for a rectal surgeon. Things found higher up do not come within the scope of this paper and, I think, should be referred to the general surgeon.

I consider the knee-shoulder position by far the most satisfactory to explore and examine the rectal cavity and most of the sigmoid.

Preparation of Patient—The common practice of surgeons purging their patients and deluging their colons the night before and prior to operation courts annoyance and infection, since it insures that the field of operation will be bathed with fluid feces, which delays the work, contaminates the wound, soils the dressings, and makes the patient uncomfortable afterwards.

For fistula, hemorrhoids, fissure, polypus, and other minor operations, but a few moments are required to prepare the patient, which is done by having him inject a glassful of soapsuds into the rectum to bring away the solid feces, after which the mucosa is mopped over with peroxide of hydrogen or other antiseptic, a procedure which forestalls the annoyance referred to.

Where the bowel is to be resected or amputated for rectal procidentia, stricture, tuberculosis, or malignant disease, the patient is kept in the hospital for three or four days and the gastrointestinal tract is first thoroughly cleansed by catharsis and colonic ichthyol one per cent. irrigations, and is then tied up with an opiate or strong astringent which insures a dry field for operation.

The parts are never shaved, except where sutures are used, and primary union is anticipated, because the hair stubs cause the patient great annoyance.

General Anesthesia can probably never be robbed of a certain amount of hazard, no matter what agent be used or how skilled the

anesthetist; therefore, it is the duty of the medical profession to substitute local for general anesthesia whenever possible.

Young children and very nervous individuals will probably always require general anesthesia for operative work, but the number of operations which can be satisfactorily performed under local anesthesia, upon normal individuals, is rapidly growing, and it is a striking fact that physicians and nurses who have had opportunity to observe the practical effects of local anesthesia nearly always choose that method for operation upon themselves.

Local Anesthesia is dependable and indicated in about eighty per cent. of all rectal operations, but is contra-indicated in complicated cases where the surgeon does not know what is required before the operation is begun.

General or spinal anesthesia is necessary for very extensive operations.

Many drugs have been employed, but none has brought about more complete local anesthesia than a one-eighth of one per cent, eucaïne solution, which anesthetizes the parts in a few seconds without inducing toxic manifestations.

Quinine and urea solutions take longer, but produce an anesthesia which lasts during and for many days following the operation. This solution prevents post-operative pain temporarily, but this advantage is counter-balanced by the sloughing that occasionally occurs and usually retards healing of the wound following its employment.

Gant does not employ adrenalin in combination with any local anesthetic, for it first causes contraction and later relaxation of the tissues, and he prefers an immediate hemorrhage if it is to occur, so that it can be properly controlled.

Post-Operative Treatment—General surgeons are divided as to their method of controlling the stools after rectal operations. Many purge the patient, liquefy the feces, and keep him busy and miserable through the frequent visits to the toilet, while others pursue an opposite course, administer an opiate and tie up the bowels for several days. Both procedures are to be condemned, because the former insures continuous irritation and favors infection through constant soaking of the wound with fluid feces, and the latter leads to excruciating pain and tearing open of the wound

when the accumulated, dried, and nodular feces are finally expelled.

Gant keeps his patients practically on a normal diet, does not order a laxative unless the stools show a tendency toward hardness, when he orders mineral oil, or a fruit, or laxatives in small doses to soften but not liquefy the feces, because then at one sitting the semi-solid fecal matter is evacuated without causing defecatory pain or traumatizing the wound.

Proctologists have recently simplified the treatment of lesions and wounds in the lower rectum and thereby greatly minimized the patient's suffering. The practice of universally cauterizing wounds no longer obtains, and they are drained and not packed, pernicious features often responsible for unhealed sores and fecal incontinence.

In cleansing the wound, the swab and cotton moistened in water or an antiseptic solution have been substituted for copious irrigations which left the rectum, filled with the solution, to dribble out, soil the dressings, and make the patient miserable.

When healing is tardy, it can be satisfactorily stimulated by leaving a gauze pledget moistened in a solution of silver nitrate, six per cent., ichthyol, ten per cent., or balsam Peru, twenty per cent., in the wound, but where the tissues are irritable and rebel against stimulation, methylene blue, ten per cent., is used. Pain from topical applications can be minimized by ten per cent. cocaine applications, but in extremely sensitive individuals suffering can be prevented by one-eighth of one per cent. eucaine solution injected beneath the lesion to be treated.

Hemorrhoids—The surgical treatment of hemorrhoids is always satisfactory, and the operation can be performed under local anesthesia induced by sterile water or one-eighth of one per cent. eucaine solution, except where there exists some other complication. Local anesthesia should not be employed when hemorrhoids are associated with other and more serious rectal affections needing operative interference.

Many surgical procedures have been suggested for the relief and cure of internal hemorrhoids, some simple and effective, while others are more elaborate, unsatisfactory, and often followed by unpleasant sequelae. Named in the order of their popularity, these proce-

dures are the ligature, clamp and cautery, excision and injection method.

Ligature Method—Of all hemorrhoidal operations, the ligature is the oldest, most generally used, reliable, is rarely followed or accompanied by hemorrhage or complications, and the results are satisfactory.

The technic of this operation is very simple and can be carried out under local or general anesthesia. Except where there is some special reason for administering gas or ether, I perform the operation under one-eighth of one per cent. eucaine anesthesia. The hemorrhoids are brought into view by means of small enemata or by a suction-pump, having the patient strain, everting the anus, tilting the fenestrated speculum as it is withdrawn, or by the insertion of several cotton tampons, which are withdrawn simultaneously, bringing the hemorrhoids with them.

The pile is then injected with the eucaine solution until white, which indicates complete anesthesia. The next step in the operation consists in drawing the tumor downward and severing the cutaneous nerves at the muco-cutaneous junction with scissors. A fine, but strong linen ligature is placed in the incision and the hemorrhoid is ligated and excised, leaving a sufficient stump to prevent slipping of the ligature and bleeding.

The remaining tumors are in turn treated in the same manner, and the operation completed by gently pushing the ligated stumps above the sphincter, as the patient draws the parts upward. A thick wedge shaped gauze pressure pad is then placed over the anus and held in place by a strong T-binder to arrest and prevent hemorrhage.

When piles are high up it becomes necessary at times to use a long needle and inject them through the opening in the fenestrated speculum, after which they are seized and brought down into the field of operation.

It requires a greater amount of skill to do a radical operation for hemorrhoids under local anesthesia than the inexperienced would believe.

Clamp and Cautery—The steps in this operation are exactly as in the ligature method up to and including the cut at the muco-cutaneous junction (Hilton's white line). The pile is then drawn down with forceps, clamped, excised with scissors, and the stump thoroughly burned with a Paquelin cautery. After all

hemorrhoids have been removed, the stumps are greased with sterile vaseline, returned within the bowel, and the dressing is completed as in the ligature method. A hemorrhoidal wound which has been cauterized should never be sponged, because, when the burned surface is broken, dangerous bleeding may follow.

Rectal tubes and gauze plugs should never be employed in hemorrhoidal operations, because they make the patient uncomfortable, their removal is often attended with excruciating pain or bleeding, and they are unnecessary when the operation has been properly performed.

The clamp and cautery operation is radical, causes but little suffering, and can be painlessly performed under local anesthesia, but is not as satisfactory as the ligature method, because the patient fears the glowing cautery point and may not remain quiet; besides, the cautery frequently fails to work. I sometimes use soldering irons.

Excision Method—There are several ways of excising piles, some of which are easy and others difficult. The most elaborate technic is that of Whitehead, which consists in excising the lower two inches, or supposed pile-bearing region, and uniting the divided mucosa with the anal skin.

This operation seems to appeal to the general surgeon, but is rarely performed by proctologists, and then only in a modified form, because it is difficult, bloody, and frequently followed by infection, hemorrhage, delayed healing, pain, stricture, fecal incontinence, incurable ulceration, loss of sensation at the anal outlet, intolerable itching or other complications when primary union fails. Gant does not believe Whitehead's operation is ever justifiable in the treatment of uncomplicated hemorrhoids, and says he has treated more than two hundred men and women made permanent invalids by the Whitehead operation.

A simple method of excising hemorrhoids is to seize each tumor in turn, cut it off with one stroke of the scissors, ligate bleeding vessels, and rapidly approximate the cut edges with a running catgut suture, or else permit the wound to heal up by granulation; or the tumor may be removed in successive steps by first cutting, then suturing, and so on, until it is excised and the wound closed. The advantages of other and simpler operations over that of Whitehead's is that a stricture will not

follow because healthy strips of mucosa are left between the denuded surfaces and the bowel cannot retract.

Injection Method—Since the popularization of operative procedures under local anesthesia, the injection treatment of hemorrhoids has become almost obsolete, but some quacks continue to use the method since they are unfamiliar with the newer technic.

The injection of protruding and bleeding internal hemorrhoids with a 30 per cent. solution of carbolic acid very often works magic, and relieves the patient almost immediately, without detaining him from business or causing pain; but at other times and under the same conditions, the injection is followed by considerable swelling, great pain, sphincter-algia, sloughing, abscess and fistula, phlebitis, pyemia, a tedious post-operative treatment, imperfect cure, and a number of deaths have resulted from the procedure. Gant claims to have no occasion for resorting to the injection method, because, under eucaine one-eighth of one per cent. anesthesia, hemorrhoids can be painlessly removed in five minutes without causing the patient a long delay from business, dangerous or distressing complications, and with the assurance that a permanent cure will follow.

External Thrombotic Hemorrhoids are anesthetized by injecting a sufficient amount of eucaine to cause the pile to turn white; it is then transfixed with a sharp-pointed curved bistoury, slit open, the clot turned out, and the wound drained to prevent refilling of the tumor.

The subsequent dressing consists in cleansing the parts and reinserting the gauze until the wound is healed.

External Cutaneous Hemorrhoids are quickly removed with knife or scissors after they have been injected with a eucaine solution. Anesthesia is complete within twenty seconds following the injection.

After excision of cutaneous piles, the wound may be closed with catgut sutures or permitted to heal by granulation, the latter method being preferable, because it is accompanied by less pain and is never followed by infection.

Pruritus Ani—Ball's operation for pruritus ani, which has for its object the severing of nerves from their connection with the skin—an elaborate procedure that leaves extensive

wounds which require weeks to heal when infection occurs—has been modified by Gant so that it can now be quickly performed under local anesthesia, and the patient need not remain in the hospital more than a day or two.

Fistula—There are many types of fistulae, but I will not describe the operative measure of each, because the underlying principle is the same in all. The more common type of fistula may be operated upon by either the division or excision method.

Division is the best procedure, because the technic is simple, requires only about five minutes, the results are universally satisfactory, and fecal incontinence seldom follows.

When the sinus is divided under local anesthesia, the tissues immediately above it are injected with a one-eighth of one per cent. eucaïne solution until blanched, care being taken to prevent the needle from entering the tract. The end of the grooved director is passed through the outer and then the internal opening, into the bowel, where it is caught by the index finger, brought outside and left resting across the anus. All overlying tissue is then quickly severed with a sharp-pointed curved bistoury, or the director may be dispensed with and the tract divided with the aid of probe-pointed fistula scissors.

Excision Operation—Here a probe is introduced through the sinus and brought out through the anus, where the two ends are twisted together, so that the probe can be used as a guide and tractor. The sinus is then quickly dissected out with knife or scissors by a succession of strokes made on either side. As soon as the tract has been removed, the divided ends of the sphincter and wound edges are accurately approximated by deep and superficial chromicized-gut sutures, after which a dry dressing is applied and held in position by a T-binder.

Blind Fistula—Blind internal fistulae which run downward under the sphincter and skin are more difficult to operate upon. Formerly, time was lost and occasionally false passages were made by the surgeon in his attempt to locate the sinus by cutting down upon it, but since Gant devised his angular grooved director, the operation has been simplified, viz.: The angular grooved director is pushed upward into the rectum until its probe-point can enter the opening and be drawn downward through the sinus until the integument bulges.

It is then brought out through a small opening made for the purpose and allowed to rest across the anus until the over-lying structures have been divided as in complete fistula operations. In case this instrument is not at hand, the indurated tract is located by palpation and cut down upon, after which an ordinary director is introduced from without and the sinus divided in the usual way.

There is no danger of fecal incontinence following fistula operations where the sphincter is cut at a right angle, the wound drained instead of being packed, as the skin and mucous membrane are thus prevented from growing down into the cut and separating the muscle ends. The dressings should be changed when soiled, and replaced gently to prevent destroying fresh granulations, which, otherwise, would delay healing and favor incontinence.

Stricture—Formerly stenosis, wherever located, was treated by forcible or gradual divulsion, but this dangerous practice has been abandoned except when the constriction is within three inches of the anus, because many deaths have occurred from rupturing the bowel above the peritoneal attachment. The rational treatment of strictures today consists in dividing them under local anesthesia when low down, excising the diseased gut when higher up, and performing colostomy in inoperable cases.

Polyps—Polyps that protrude are anesthetized with sterile water or eucaïne, ligated and cut off, or excised by the clamp and cautery operation. When situated high up, they are located through the proctoscope and twisted off, or removed by placing a Gant vale-clamp upon their pedicles which causes them to slough off quickly without pain.

When polyps are very numerous, scattered throughout the colon and cause a foul discharge or obstruction, appendicostomy, cecostomy or excision of a part or all of the diseased colon or rectum is indicated.

307 Taylor Building.

EXAMINATION OF THE CEREBRO-SPINAL FLUID AS A ROUTINE IN LUETIC INFECTION.

By P. LEWIS WITCHLEY, Richmond, Va.

The cerebro-spinal fluid, clear and limpid in appearance, of low specific gravity, and containing normally under ten cells per cmm., secreted, in the main, if not entirely, by the

choroid plexus, is seeking its place in the routine examination made on individuals who have contracted syphilis. Until very recently, the lumbar puncture was looked upon with awe, as being a dangerous procedure, and only to be used in exceptional cases. Even today the medical profession hate the idea of tapping the vertebral canal out of fear of untoward effects.

Granted that rachicentesis is not a procedure to be played with, yet with proper precautions the risk is indeed very slight. Untoward effects have resulted from too rapid withdrawal of the fluid, or resorting to the method of aspiration, yet similar untoward effects have risen from the too rapid withdrawal of a pleural effusion, but we fear not to tap the pleural cavity nor to remove a pericardial effusion.

There are a few basic principles to be borne in mind in performing a lumbar puncture.

First, strict aseptic precautions, as in any other operation, are demanded.

Second, the patient should be placed in such a position that there is a wide separation of the vertebrae, and this is perhaps best accomplished by having the patient assume the left lateral prone position, with the head flexed upon the thorax and the thighs flexed upon the abdomen.

Third, selection of the spot for the puncture, preferably, between the third and fourth lumbar vertebrae where the "soft" spot is easily detected by palpation.

Fourth, introduction of the needle straight in, a little to one side of the longitudinal ligament.

Fifth, having felt the distinct "give away" when the dura is punctured, withdraw the trocar nearly out but not entirely. This will protect you against the too rapid withdrawal of the fluid in case there be marked increased pressure. This precaution is especially imperative in case of brain tumor, for a fatality may result if the fluid be removed too rapidly, and especially so if the tumor be situated in the region of the medulla. The writer has withdrawn the fluid from cerebral tumor cases in several instances without the patient experiencing any unhappy results, by employment of slow removal of the fluid; likewise, in performing a rachicentesis as a therapeutic measure in *mania a potu*, the fluid should be

withdrawn slowly. After rachicentesis, the patient should be put to bed, with the foot of the bed elevated 8 to 10 inches and the patient remain there for at least 24 hours. The distressing headache that sometimes results may be due to the fact that the aperture made in the dural sac by the needle remains patent, and the fluid drains out after the puncture until the healing process takes place. (*Jour. A. M. A. McRobert.*)

The employment of the above precautions and suggestions renders lumbar puncture practically a safe procedure, and one that should be resorted to much more frequently than it is.

We have given up the idea that syphilitic manifestations in the central nervous system are the results of the spirocheta-toxin, since Noguchi and others have demonstrated the presence of the ubiquitous spirocheta pallida in the brain of paretics. The organism of syphilis has been cultivated from the cerebro-spinal fluid in patients suffering with cerebro-spinal lues, and the writer has observed by dark field examination the spirochete in the spinal fluid. In short, when we find symptoms of central nervous system involvement in syphilis, a spirochetal invasion of this system demands not only our attention, but our early attention because we must employ our spirocheticidal agent before the transition of the spirochetes occurs from the meninges into the brain substance if we are to accomplish the greatest good. Draper and others have shown that the choroid plexus is practically impermeable to drugs, and even in the procedure of spinal drainage, followed by intravenous medication, only a small amount is forced through this ventricular gland.

We have at our disposal the examination of the cerebro-spinal fluid for the detection of a spirochetal invasion of the central nervous system, and the importance and necessity of making this examination will be emphasized in this view of the subject. It is important to note that tabes, paresis and certain types of cerebro-spinal syphilis have as their origin an infected fluid during the secondary stage, and that the hope of curing paresis lies in the diagnosis and treatment of its incipency, in which event the diagnosis demands an examination of the spinal fluid within the first year after infection.

A study of four thousand blood Wassermanns on patients confined in insane institutions in the state, with the corresponding examination of the spinal fluid in a great many cases, leads us to this deduction: that the Wassermann reaction-provoking bodies, erroneously styled antibodies by a great many writers, tend to disappear from the body stream in a great many cases of central nervous system involvement, and appear in the cerebro-spinal fluid. In other words, it appears as though the blood serum becomes progressively negative, while the spinal fluid assumes a progressively positive nature. Accordingly, examination of the spinal fluid is emphatically indicated when the patient has a negative blood Wassermann, with a history of lues and insufficient treatment as reckoned by our norm of therapeutic measures of today in treating syphilis.

Further deduction has been drawn by us on a more theoretical basis. The various micro-organisms exhibit the property of possessing different strains, the pneumococcus claims four, the gonococcus twenty or more, while the streptococcus heads the list with about fifty to its credit. The spirocheta pallida no doubt exhibits strain formation, and we are led to believe that there is a particular neurophilic variety which shows its predilection for nervous tissue and makes but little inroad on the somatic structures. The burden of proof rests upon us to prove the existence of this particular type, and we cite the following to lend weight to the argument. Cases of conjugal paresis have been reported; a case of individuals receiving their lues from the same source and showing similar nervous system involvement has been recorded. Negroes are less prone to paresis because of less degree of specialization of the cerebral cortex; and, lastly, the morphology of the spirocheta itself, the particularly long, very slender organism perhaps being of the neurophilic variety, which has been styled by the writer the spirocheta pallida nervosa.

Examination of the spinal fluid is then indicated for two reasons, first, that the reaction-provoking bodies appear in the fluid when they are absent or of insufficient numbers in the blood stream to give a positive blood Wassermann; second, there probably no doubt exists a neurophilic variety which shows its

early predilection for the tissue of the central nervous system.

It befalls the syphilographer, in performance of his full duty, to make a lumbar puncture on all cases of secondary and tertiary syphilis, and in those found positive, to employ the proper channel of administration of his drug. He should be equipped to do intraspinal therapy in a majority of these cases, and we regret that this channel of administration is so often neglected, with the result that our asylums are afforded with a feeder of paretics and tabetics.

Our view, seemingly radical yet practical, is to consider all cases of secondary syphilis as being potential paretics or tabetics, and that before they are given a clean bill of health, the spinal fluid should be examined. Discharging the patient whom you have cured clinically from a somatic point of view of his secondary manifestations of syphilis, and upon whom you have obtained the appropriate serological results on the blood serum, without knowing the condition of the spinal fluid, is a decided injustice to the patient. The necessity of this examination should be explained to him; the picture, dark and gruesome as it is, of the result of tabes and paresis, should be laid before him in an appropriate manner, that he may realize the seriousness of neglecting spinal fluid examination.

Our files show numerous examples of the importance of examination of the cerebro-spinal fluid, and we will cite a few typical cases.

Case 1. C. S., male, aged thirty. Chancre, July 1917. Secondary manifestations: condyloma latum in month. Blood Wassermann, + + + + on four antigens. Diarsenol November 30th, December 4th, 8th, 15th and 23rd. Negative blood Wassermann February 5th. Clinical cure. Patient returned February 20th, complaining of nausea, dizziness, and persistent frontal headache. Neurological examination February 24th showed slight blurring of disc of right eye, slight sluggishness of the pupil of the same eye in reaction to light, and a very slight irregularity of the pupil. No alterations in other superficial and deep reflexes. Babinski absent. Negative Rhomberg. No paresthesia; no gait changes.

Spinal puncture February 24th. Increased pressure 15 mm. Hg., 150 cells per cmm; lym-

phocytes 90 per cent, polys 5 per cent, plasma cells 3 per cent, all others 2 per cent. Marked increase of globulin as shown by Pandey's, Ross-Jones' and Noguchi's tests. Wassermann + + + + with 0.5 c.c. of fluid with cholestrinized, much uncholestrinized acetone insoluble lipoids, and alcoholic extract of luetic liver as antigens, and + + + + with .2 c.c. on cholestrinized antigen; colloidal gold; luetic zone curve 0133+321000. Diagnosis: Syphilitic meningitis.

Meningeal symptoms were marked for three or four days. Combined intravenous and intraspinal treatment with unguentum hydrargyrum inunctions was given on four occasions.

March 23. Patient showed marked improvement.

April 1. Spinal fluid and blood Wassermann negative.

Cell count on fluid normal. Patient discharged, but to be kept under observation for two years.

In this case we note, first, the rapidity of central nervous system involvement; second the failure of intravenous treatment to prevent or to allay this involvement of the central nervous system and, third, the value of examination of the spinal fluid though we had a negative blood Wassermann and an apparent clinical cure; and, fourth, the possibility of an infection with the neurophilic strain.

Case 2. J. B., male, aged forty. Came under our observation showing inequality, irregularity, and immobility of the pupils; shooting pains in the legs; inability to walk in the dark; gastric disturbances; loss of sexual power; paræsthesia. Patient had undergone eight abdominal operations. Cholecystectomy, appendectomy, gastro-enterostomy, and operations for relief from adhesions. Gall bladder and appendix showed no pathological changes. History of syphilis about twenty years ago; considerable treatment. Blood Wassermann negative. Knee jerks absent; Rhomberg negative. Babinski positive.

Lumbar puncture February 2nd. Increased pressure. Normal in appearance. Cell count 25 per cmm., 95 per cent being lymphocytes. Marked increase in globulin. Wassermann reaction + + + + with 0.05 c.c. fluid on cholesterin antigen and + + + + with 0.1

c.c. on acetone insoluble lipoids, uncholestrinized antigen and alcoholic extract of luetic liver; colloidal gold; tabetic curve. Diagnosis: tabes dorsalis.

Relief from his gastric symptoms is being obtained by antisyphilitic treatment.

This case is especially significant. The numerous operations without relief attract our attention. The normal appendix and gall bladder, though the symptoms of disease of these structures at time of operations are important to consider. No doubt the patient was suffering with the gastric crises of tabes at the time of the operations, and realizing that syphilis of the cord may manifest itself by symptoms, markedly simulating those of appendicitis and cholecystitis, we cannot put too much censure on the surgeon. However, it is an everyday occurrence that an exploratory operation in obscure abdominal conditions is performed when the spinal fluid examination would clear up a majority of the cases and spare the patient from the unsuccessful knife in this condition, and send him to the neurosyphilographer for intraspinal treatment.

Case 3. M. F. W., female, aged fifty. Diagnosis, manic depressive insanity. Absent patella reflexes, paræsthesia, positive Babinski, locomotor ataxic gait. Denies venereal history.

Blood Wassermann negative. Wassermann reaction on spinal fluid negative with 1.5 c.c. of fluid on all antigens. Cells 6. Globulin absent. Pressure of fluid and appearance normal. Colloidal gold 0000000000. Blood picture: severe secondary anemia. Diagnosis: tabes dorsalis from ischemia of the cord.

Treatment of the causative factor of the anemia gave considerable relief from the spinal symptoms.

The three illustrative cases bespeak the value of early spinal fluid examination for the detection or the absence of central nervous system involvement in our syphilitic and apparently syphilitic patients.

In examining the spinal fluid in these cases, it is necessary to perform the four reactions as cited by Nonne.

Reaction 1. Cell count. This should be performed, using a Fuch's Rosenthal counting chamber to insure greater accuracy. The staining fluid is drawn up in white cell pipette

to mark 0.5 and the spinal fluid up to 11. The pipette is shaken in all planes, and the stained fluid put on counting chamber. All the cells in the contained squares are counted, and the result divided by 3.04 to estimate the number per cmm.

The differential count is of value, since a marked lymphocytosis indicates in the presence of globulin a syphilitic or tubercular condition of the meninges.

Reaction 2. Globulin Estimation. Three tests are at our disposal. Pandy's, Ross-Jones, and Noguchi.

1. Pandy. Carbohic acid reagent, which is prepared by adding 10 parts of pure phenol crystals to 100 parts of hot, freshly distilled water. Mixture is shaken frequently every day for three days. Clear supernatant fluid is withdrawn and used as the reagent. Technique of the test: To 1 c.c. of the reagent add 1 drop of the spinal fluid. A bluish-white cloud indicates presence of globulin. This is an easy and yet very reliable test.

2. Ross-Jones. Reagent: Saturated aqueous solution of neutral ammonium sulphate (Merck's Blue Label). Heat distilled water to boiling and add the ammonium sulphate until no more will dissolve. Filter the solution while hot. Use filtrate as the reagent.

Technique of the test: Introduce 0.5—1 c.c. of the spinal fluid in a small test tube. With a capillary pipette run 0.5—1 c.c. of the ammonium sulphate solution under the spinal fluid. The formation of a clear-cut grayish white ring at the line of contact constitutes a positive reaction. Wait at least 15—20 minutes for ring to form before calling the test negative.

3. Noguchi test. Reagents. 10 per cent butyric acid in physiological salt solution; normal sodium hydroxide. Technique: 0.1 c.c. of the spinal fluid is added to 0.5 c.c. of the butyric acid. Heat to boiling. Add 0.1 c.c. of normal sodium hydroxide solution. Formation of a granular precipitate indicates positive reaction. This test should be given a little time before reading the results. The disagreeable odor of the butyric acid is a drawback to the test.

Reaction 3. Wassermann Reaction. In the performance of this test, the technique of which is beyond the scope of this paper, the employment of cholestrinized antigen with

two units of complement, and the use of uncholestrinized acetone insoluble and alcoholic extract of luetic liver with 1 unit of complement has proved very satisfactory in our hands. Varying amounts of the spinal fluid should be used: 1 c.c., 0.5 c.c., 0.25 c.c., 0.1 c.c., 0.05 c.c. Considerable error may result and false reports be obtained by using too small quantities of the fluid.

Reaction 4. Lange's Goldsol Reaction. This test depends upon the precipitation of gold out of the colloidal gold solution by the changing ratios of protein content. The integrity of the test depends upon the color and reaction of the gold chloride solution, and whether or not solution is unprotected or protected.

The value of this procedure is confirmatory and to aid in detecting different degrees of invasion by the spirochete in the central nervous system. The most constant finding of the test is obtained in paresis. Colloidal gold test is of considerable value in differentiating meningismus from meningitis.

CONCLUSIONS.

The lumbar puncture, when made with proper precautions, is practically devoid of danger.

Every case of secondary and tertiary syphilis should have a spinal fluid examination early, for the efficiency of the treatment, when the central nervous system is involved, depends upon the diagnosis of the condition in its incipency. Early examination of the spinal fluid anticipates future degenerative changes.

Early involvement of the nervous system is only detected by spinal fluid examination. The symptomatology of neurosyphilis is well defined after permanent changes have taken place, but we must detect the condition before these inroads have occurred in order to obtain the best results.

Exploratory operations in obscure abdominal cases may be omitted in many cases by spinal fluid examination.

The four reactions should be done on every spinal fluid.

Director of Clinical Laboratory.
17 East Grace Street.

Pledge yourself to save to the utmost and to buy a definite amount of War Savings Stamps each month.

Practical Points in Current Medicine

General Surgery

Tumors of the Breast.

In many conditions that require surgical treatment a rather definite policy has been worked out. The treatment of acute appendicitis, of gallstones, of gangrene, of wounds of the intestines, and many other conditions is along generally well recognized lines with which physicians and surgeons are mostly in accord. The question of tumors of the breast, however, is one about which there seems to be many divergent opinions. Some surgeons take a rather arbitrary stand and say that every woman with a lump in the breast should be submitted to the radical operation for cancer. On the other hand, there is the other extreme in which the radical operation is only done when symptoms and signs of cancer are entirely obvious. Both extremes are illogical and from neither policy can a series of patients hope to receive the greatest benefit. The chief function of scientific medicine is to work out the diagnosis and if every woman with a lump in the breast were subjected to radical operation for cancer, much unnecessary mutilation would be done. It would also make patients hesitate to consult a physician or surgeon, whereas the way to lower the death rate from cancer is to encourage the woman to seek a doctor's opinion. But it must always be remembered that if a growth is malignant, the earlier a radical operation is done, the greater are the chances of a permanent cure.

Every lump in the breast should be taken seriously until the diagnosis is established beyond a reasonable doubt. Cachexia, pain, ulceration, enlarged glands in the axilla, and retraction of the nipple are late and often terminal stages of cancer. No one is justified in watching a lump in the breast until such symptoms or signs appear. Unfortunately, there is nothing pathognomonic about cancer of the breast, but as a rule it comes in women over 35, as a single lump, and without pain. There is a limitation of motion, though in the early stages this does not often seem very apparent, especially in women with relaxed mammary glands. These symptoms ap-

pear in more than 80 per cent of cancers of the breast. The rest are exceptions and here the cancer may be painful in the early stages, or may involve a lobe of the breast something like a local mastitis. Fortunately, these are rare. Then, too, a cancer developing in a benign tumor may be very difficult to diagnose. The benign tumor may have existed for a number of years and then take on considerable growth. In such a case we have confusing symptoms of a distinctly benign tumor with superimposed malignancy, such as sometimes comes when a cancer of the stomach develops on an old benign ulcer.

The vital thing in the treatment of any growth of the breast is *not to rub or massage the breast as long as there can be a suspicion of malignancy*. It is not at all infrequent for the surgeon to find cancer of the breast in which the metastases have been more rapid than could be accounted for by the histological appearance of the tumor. Inquiry often brings forth the information that the patient has been rubbing the breast with some ointment or even sometimes the doctor may prescribe massage. If early cancers were as painful as boils, such treatment, of course, would not be given but, unfortunately, this is not the case. Another practice, even worse, is making an incision into the lump and sending away a piece of tissue for diagnosis. If the growth is benign, no good has been accomplished and if it is malignant, lymphatics and raw tissue have been immediately exposed to cancer cells that could not have reached this tissue by normal growth for weeks or months.

So far as we know at present a radical operation presents the only cure for cancer of the breast and the sooner it is undertaken, the greater is the probability of cure. If we can keep this fact fixed before us and if we recognize that massage, incisions, ointments and incomplete operations not only do not cure cancer of the breast but hasten its growth, such measures would be at once discontinued. Every lump in a woman's breast or in a man's breast, for that matter, for it must be remembered that the male breast sometimes has malignant growths, should be considered most seriously until the diagnosis is clear. Then treatment suited to the case can be intelligently applied.

J. SHELTON HORSLEY.

Internal Medicine

Calcium Therapy.

In the blood, bones, skin, mucous membranes and nervous system are observed symptoms arising from loss of balance in the body of its calcium. Calcium metabolism is controlled, it is thought, by the internal glands, thyroid, parathyroid and thymus. The exact relation is not known but the parathyroids seem to exert an intimate and controlling effect upon the calcium metabolism. The hyper-excitability of the nervous system, in certain groups of cases, in which there is deficiency of calcium content in the tissues and blood, show the relation of these salts to neuro-muscular functionation. Parathyroidectomized animals show an increased elimination of calcium, hyper-excitability of the neuro-muscular system, and disturbance in bone growth.

To the internist, frequently in connection with his stomach, bronchial, and nervous cases, careful study will show that calcium therapy may be used to advantage. The action of calcium upon the vegetative and autonomic nervous system is most salutary. It assists in improving the coagulating time of the blood; it helps in increasing the combative action of the blood against infections, and improving healing qualities of the tissues. In "hay fever," in bronchial asthma, in tuberculosis of the lungs, proper calcium balance in the body assists materially in management of these cases.

But it is particularly in gastric tetany, acute and latent, that I wish to point out a practical application of the importance of calcium. I have seen among my stomach cases quite a few greatly improved and relieved of nervous symptoms by an adequate and proper dosage of calcium. This relation of the parathyroids controlling the elimination of calcium, must be borne in mind. Through insufficient parathyroid secretion calcium balance is lost and there may result certain sudden and, if continued over long periods of time, certain chronic symptoms. Paroxysmal tonic contractions of groups of muscles without loss of consciousness are the most spectacular of this form of symptoms, but paræsthesia in hands and feet, sensitiveness and over-excitability of certain nerves, with changes from the normal in growth of teeth, hair, nails and bones, are observed in most chronic cases deficient in calcium. In acute gastric cases, tetany may show itself in spasm of certain muscles as those of

the upper extremity producing the "obstetrical hand" or the thumb may be turned under and held closely to the hand, the hand may be bent backward. The facial muscles, in spasm, may show the "tetany face," the naso-labial fold-deepening and forehead wrinkling. In the sensory field, one may also observe some symptoms in these cases. There may be paræsthesia of upper extremities, numbness and tension being complained of while there is consciousness with the other special senses, hearing, taste and smelling undisturbed. In view of these symptoms two signs should be looked for: (1) Trousseau's sign (produced by making constricting pressure around upper arm), in which hand assumes a true obstetrical form; (2) Chvostek's sign (produced by tapping the trunk of the facial nerve in front of the ear), in which there is contraction of facial muscles. In cases of chronic or latent tetany, one would find fragile and ridged finger nails, short, stubby, thin hair, and rudimentary, small, irregular furrowed teeth.

ALEXANDER G. BROWN, JR.

Obstetrics

Catheterization by the Clock.

In the absence of urgent indications, should we instruct the nurse to use the catheter in so many hours after delivery?

Obstetrical catheterization is more dangerous than any other use of this instrument. We have present the lochia bathing the vulva and mouth of the urethra with a fluid containing the germs from the cervix, the vagina and the vulva, recently expressed by the force of labor from their more or less deeply seated habitat in these structures. In addition, we may have a bruised urethra and possibly a bladder not free from trauma, giving a diminished resistance to any infectious material.

The above conditions are present when the indications for the use of the catheter is urgent that the bladder be emptied, and the risk must be taken, but in the ordinary run of cases should we take this risk without an urgent indication? I do not believe it should be the rule for the woman to be catheterized unless all other methods have been tried and failed; so much do I believe this, that I write on the orders, *no catheter* unless ordered by me.

The female bladder is capable of holding a pint under ordinary conditions, and at times a much larger quantity without much appar-

ent discomfort. It is larger in its transverse diameter, so that with involution going on satisfactorily and with no indication of hemorrhage, there is no special reason for interference unless there is distention and discomfort.

A woman loses much of her body fluids during labor; an enema has been given and her bowels give off some fluid; the bladder has been emptied frequently; if labor has been long, she has lost a good deal of fluid by perspiration, and, finally, she has lost blood, varying from a few ounces to a half a pint, so her kidneys do not act so freely as they did before labor. If pituitary extract has been used, the bladder will be sure to empty itself as soon as any distention occurs.

Put the patient on the pan, and leave her alone awhile; if this is not successful, pour warm sterile water over the vulva; next, try sitting the patient almost straight on the pan, and if this is not successful, wait a little longer and try again.

It takes a very conscientious person to use a catheter properly. A little lochia on the catheter renders it unfit for introduction into the bladder. Two catheters should always be prepared to meet this contingency. A good light and as equally good position of the patient are absolutely necessary for the proper use of the catheter by one nurse.

Don't use the clock as an indicator as to when the catheter must be introduced; wait for distention, discomfort or both, and then try all other means again, and as a final resort, use the catheter.

VIRGINIUS HARRISON.

Proceedings of Societies, Etc.

MEDICAL SOCIETY OF VIRGINIA.

Proceedings of the Forty-eighth Annual Session, held in Roanoke, October 30-November 2, 1917.

Third Day—Thursday Night, November 1, 1917.

(Continued from March, 1918 issue).

The meeting was called to order at 8 P. M. by the President, Dr. George A. Stover.

The President.—We are a little late and have a lot of work to do, so we will now start on the program.

The first paper in order is "*Physically Deficient*" by Dr. M. O. Burke, Richmond. Is Dr Burke present? He seems to be absent.

The next paper is "*Adolescent Insanity Or The*

So-Called Dementia Præcox" by Dr. W. Reid Putney, Amelia. The chair will state that Dr. Putney was called away this morning by telegraph.

We will now go to the next paper, "*Paresis—A Look Back On Recent Therapy*" by Dr. J. K. Hall, Richmond. We are very sorry, Dr. Hall not to have a larger attendance tonight. (Paper not handed Secretary.)

Discussed by Dr. H. E. Jones, Roanoke.

Dr. C. C. Coleman, Richmond, read a paper on "*The Treatment of Brain Injuries with special Reference to the Indications for Operation.*" (Paper not handed Secretary).

The President.—Dr. Coleman's paper is now before you for discussion.

Dr. S. S. Gale, Roanoke.—I move that Dr. Coleman's paper and the paper of Dr. Payne and Dr. Hayes be discussed together.

(The motion is seconded, stated and carried).

The President.—We will now have the paper of Drs. R. L. Payne and H. J. Hayes, Norfolk on; "*Indications and Contra-Indications For Operative Interference In Head Injuries Accompanied By Increased Intra-Cranial Pressure.*" (See *Virginia Medical Semi-Monthly*, November 23, 1917.)

A Voice.—In view of the fact that Dr. B. R. Tucker's paper fits in very well with the two papers just heard, I move that we hear his paper and then hear a discussion of all three of them at the same time.

(The motion is seconded, stated and carried).

The President.—We will, then, have the paper of Dr. Tucker, Richmond on; "*Some Remarks On The Diagnosis of Brain Tumors With Report of Cases.*" (Paper not handed Secretary.)

The President.—The papers of Dr. Coleman, Dr. Payne and Dr. Hayes and Dr. Tucker are now before you for discussion.

If there is no discussion of those papers, it gives me great pleasure to present to you our distinguished guest, Dr. Samuel G. Gant, of New York, who will address us on; "*Recto-Colonic Affections, With Operations—Illustrated With Moving Pictures.*" (Paper in hands of the Publication Committee).

Dr. H. H. Trout, Roanoke.—Dr. A. Murat Willis, of Richmond, has to catch a train tonight, and I make a motion that we hear his paper before we adjourn.

The President.—Do you make a motion to suspend the rules?

Dr. Trout.—Yes, sir; and to hear his paper.

The President.—Is there a second to the motion?

(Motion is duly seconded, and carried.)

The President.—We will now hear Dr. A. Murat Willis' paper on; "*Operation For The Removal Of The Gall Bladder without Drainage.*" (Paper not handed Secretary).

Dr. Willis.—If there is no objection I would like to show six plates.

The President.—Is there any objection? If not, you may show the plates.

(The plates are here thrown on a screen).

The President.—Inasmuch as we are working under a suspension of the rules temporarily, we might have a report from Dr. J. B. Jones, Acting Chairman of the Membership Committee.

The Committee report nominated Dr. E. H. Richardson, Baltimore, as an Associate Member, and he was unanimously elected.

The President then called for the Report of the Meeting of the New Executive Council, which was read by Dr. A. G. Brown, Clerk as follows:

Hotel Roanoke, 8:30 P. M., Nov. 1, 1917.

A quorum consisting of Drs. Gray, Jones, Pearce, Whitehead, Lankford (for Hancock), Kendig, Brown, Cushing, Garrett, McGuire and Tucker being present, the organization was duly effected by the election of Drs. A. L. Gray, Chairman, and A. G. Brown, Jr., Clerk.

It was moved and adopted that the Chairman appoint a committee to report upon the matter referred by Va. State Board of Medical Examiners.

Chairman appointed Drs. McGuire, Kendig and Pearce. (This Committee reported to the Society Friday morning, November 2, 1917, q. v.).

It was moved and, after due consideration, adopted that the Secretary-Treasurer's salary be recommended to the Society as \$1200.00 per annum.

Chairman appointed a committee consisting of Drs. Drewry, Irving, Garrett, Dickinson and Kendig, to confer with a committee from the Southwest Virginia Medical Society.

Chairman appointed the following Committee on Publication of Transactions: Drs. Brown, Gray, Irving, Kendig and Tucker. This Committee was authorized to provide for the publication of the transactions.

Chairman appointed Drs. Gray and Brown as Committee to audit the books of the Treasurer and to fix the bond for the Secretary-Treasurer.

The Executive Council recommended that the Society express its thanks to the profession in the City of Roanoke for the splendid entertainment accorded the members and the ladies during this session.

Adjourned.

The President.—The report is before you; what is your pleasure?

Dr. Paulus A. Irving, Secretary.—I trust the Society will not regard it as indelicate in me to make a statement. I do not care—although I assume the office of the Secretary-Treasurer—to have an increase in the salary over what I received as Secretary. I did not know it had been increased by the council; I would prefer for it to remain at \$1,000.00 for the work as Secretary, and if the Society sees fit they can give me \$100.00 or \$200.00 for office expenses. (Applause).

Dr. Griffith.—It seems to have been the impression this afternoon that the salary would be lower and I move that it be put \$1,000.00 instead of \$1,200.00.

The President.—You have heard the motion.

Dr. C. P. Jones, Newport News.—I move that he be allowed \$200.00 for office expenses.

Dr. J. B. Jones, Petersburg.—I cannot see any difference in that and the original proposition. It is one and the same thing. I heartily recommend the motion that we allow him \$200.00 for office expenses.

The President.—You have heard the motion.

(The motion is stated and voted upon).

The President.—The Chair is in doubt. All in favor of it will stand. (They do so). Now those opposed will rise. The motion is carried. (Applause).

The President.—If there is no further business, the Society stands adjourned until 9 o'clock in the morning. The Chair will state that we are a little behind on our program and it is hoped that the members will endeavor to be on hand promptly in the morning so we may proceed with the program.

The Society is adjourned.

Fourth Day—November 2, 1917, 9 A. M.

The meeting was called to order at 9 A. M. by the President, Dr. Geo. A. Stover.

Dr. Paulus A. Irving, Secretary.—Here is a communication from the council, which was sent to

the council by the Medical Examining Board. It seems often where there is an infringement of the Medical Practice law, the officers have difficulty in getting a conviction in some Courts; hence the Board would like to have the following adopted:

Resolved, That the Council appoint a committee of three members to be designated as the Sub-Committee on Finance. That upon application from members of the Council who may request the employment of legal counsel to assist any Commonwealth's Attorney in their respective Districts in the prosecution of alleged violation of the Medical Practice Act, this Committee shall determine the compensation to be paid for such legal service.

When, in the opinion of the Medical Examining Board or of any Component County Society legal assistance is needed, application should be made to the Council in whose District the alleged violation occurs, who shall, with the consent of the Sub-Committee on Finance, employ such legal counsel as he may deem expedient.

Dr. Irving (continuing).—The council passed this and asks that the Society take action on it.

The President.—If there is no objection, this report is adopted.

The President.—The next paper is "*Treatment of Fractures, Illustrated By Lantern Slides*", by Dr. S. S. Gale, Roanoke. (Dr. Gale was absent.).

The President.—The next paper is "*Epithelioma—Lantern Slides*", by Dr. A. C. Broders, Rochester, Min.

We are sorry our crowd has disintegrated, but the excursion to Catawba has taken many away. Circumstances over which we had no control caused us to lose out yesterday evening on our program. I know there are many men here who are particularly anxious to hear your paper, Dr. Broders; at the same time they should have known it would come up this morning.

Dr. B. C. Keister, Roanoke.—It seems to me some action ought to be taken in this matter of conflict of the program. I think we have enough here to take some action. I think there ought to be censure passed on the management for allowing it to butt in on the program.

A Voice.—The whole of yesterday afternoon was taken up here with the discussion about going back to the old constitution.

The President.—We will hear Dr. Broders' paper now. (Paper and 59 illustrations in hands of Publication Committee.)

After the paper was read all present went to the rear of the hall and viewed the photographs exhibited by Dr. Broders.

The President.—The next paper is "*Relation of Internal Secretions and Faulty Metabolism To Mental Perversions*," by Dr. B. C. Keister, Roanoke. (See paper and discussion in *Va. Med. Mo.*, May 1918).

The President.—The next paper is "*Review of the Literature of Nitrous Oxide Oxygen Anaesthesia*," by Dr. Southgate Leigh, Norfolk. (Absent).

The President.—The next paper is "*Remarks on Pelvic Inflammation in Women Emphasizing the Importance of Gonorrhoeal Infections*," by Dr. J. D. Rogers, Washington, D. C. (Paper not handed Secretary).

Discussed by Dr. A. B. Greiner, Rural Retreat; Dr. W. C. Powell, Petersburg; Dr. B. C. Keister, Roanoke; Dr. J. M. Ladd, Washington, D. C., and Dr. R. L. Page, Batesville; Dr. Rogers closing the discussion.

The President.—This concludes our program.

In retiring from office, gentlemen, I am leaving the

chair to my successor, and I want to say it has been a great pleasure to me to preside over this meeting of the Society. The uniform courtesy, attention and good order that has been manifested has been very gratifying. If there has been one dominant idea that has run throughout this session it seems to me it is the idea that we as doctors, that the Medical Society of Virginia as an organization, desire to serve in this crisis, in this time of war; and also to solve the problems that confront us at home. Our new president, it seems to me embodies this idea more than any other one man in the state. He is the one man more than any other who can cement the bond of union between the state and the medical profession. It, therefore, gives me great pleasure to introduce Dr. Ennion G. Williams, President-Elect. (Applause.)

Dr. Ennion G. Williams, Richmond.—Gentlemen I know a number of us have to take the 12 o'clock train and we have only 15 minutes. I wish I had time to say more. There is so much I would like to say.

To say that I appreciate this honor is but a small expression of my opinion, of my idea of the appreciation that I have, and of the honor that you have conferred upon me. It was a surprise that it should come.

Since I have been connected with the Health Department of the State I have tried to keep out of all matters in which there might possibly be friction among the doctors, particularly the Medical Society, and, therefore, I have tried never to mix up in those matters which might bring friction against the work I represent and the efficiency of that work. When I heard I had been nominated for this position it was a source of embarrassment, but when I realized it was not a personal matter, but more of the endorsement of the work of the State Board of Health, a manifestation of the Society's appreciation of that work and its endorsement, I felt it my duty to accept the position.

I do not, however, want you to think that the credit for the success of the State Board of Health is due me personally. I have often thought I am in the position of a ring-master in a circus; the performers do the work. The success of the work is in the men of the department who have done so much of that splendid work, and particularly the co-operation of the doctors all over the state. The success of the work has passed our expectations. To think that of typhoid eight years ago there were 14,500 cases, and it has year by year been reduced until this year the records to October 1st. show 5,038 cases. Now, that is the work which the physicians of the state have brought about, and I am proud to represent the bond of union showing that the doctors are sympathetic with that work and the wonderful work they have accomplished for the good of the people.

These are such serious times that I wish I could touch upon other matters, such as the shortage of doctors, and what we can do to compensate for the lack of doctors, standard of education, and so forth. We do not want the bars so high that the young doctors cannot study medicine. There are a number of other problems I would like to touch upon, but I cannot do so now because we must catch the 12 o'clock train.

I wish to thank you and to express my appreciation. (Applause.)

Dr. Paulus A. Irving, Secretary.—I move that we adjourn to meet in Richmond next October.

(Seconded, and carried.)

The Society Adjourned.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Reported by EMIL MAYER, M. D., New York, N. Y.

(Continued from page 89).

Final Conclusions Regarding Amputation of the Epiglottis for Tuberculosis.

By Lorenzo B. Lockard, M. D., Denver.

Amputation of the epiglottis is as safe a procedure as tonsillectomy. In over four hundred cases, in the majority of whom vitality was reduced to the lowest ebb, not a single direct fatality resulted.

The objection most frequently advanced is that no operative procedures are justified unless the lesion is so circumscribed as to be capable of complete excision.

It must be borne in mind that in nine cases out of ten the sole object is palliation, and usually in patients upon whom all other methods of treatment have failed.

Even when a cure is considered possible, removal of all involved tissue is not invariably essential to success. It has been demonstrated repeatedly that when an epiglottis is universally infiltrated, and only the upper half or two-thirds is removed, the stump rapidly recedes to normal. It is rare that the disease recurs in the stump.

Healing of the stump is usually rapid and complete, regardless of the extent or rapidity of progress in the complicating pulmonary and laryngeal lesions, hence the question of advisability of operating in this manner hinges upon two questions: in incurable cases what amount of relief may be anticipated, and in cases otherwise hopeful, what influence will the operation have upon the accompanying laryngeal lesions?

A number of patients are living upon whom the operation was performed from ten to twelve years ago, as a palliative procedure, and in whom the resultant unexpected improvement in lungs and larynx was so complete that eventual arrest ensued.

The improvement in accompanying lesions can be ascribed in large part to the same influence that occasions pulmonary betterment: the removal of pain, increase in nourishment taken, improved sleep, and lessened cough.

Another important factor is the increased accessibility of the larynx to treatment. After the epiglottis is removed it is often easy to destroy by galvanocauterization lesions that were previously completely hidden. It is a fact that a surprising subsidence in these accompanying processes is frequently observed.

The chief indication for amputation, how-

ever, is and must remain, the relief of pain, without thought to the eventual cure of either laryngeal or pulmonary diseases.

The one great contraindication, in the author's experience, is that form of epiglottic involvement, either infiltrative or ulcerative, in which the process is beginning to involve the base of the tongue or the pharyngoepiglottic folds.

The entire lateral walls and base of the tongue may and usually do break down within a few weeks after the very first signs of disease become manifest. In these cases only is amputation absolutely contraindicated. In all others, if pain exists and is uncontrollable by other treatment, excision is advisable. No bad effect upon the general health has been observed. Complete anesthesia can be obtained, and the operation itself need not, in the average case, require more than a half minute.

Book Announcements and Reviews

The Monthly will be glad to receive new publications for acknowledgment in these columns, though it recognizes no obligation to review them all. As space permits we will aim to review those publications which would seem to require more than passing notice.

Differential Diagnosis. Volume II. By RICHARD C. CABOT, M. D., Assistant Professor of Clinical Medicine, Harvard Medical School. Second Edition. Octavo of 709 pages, 254 illustrations. Philadelphia and London: W. B. Saunders Company. 1918. Cloth, \$6.

Following the same scheme as in Volume I, in which he discussed pain and eleven other symptoms by illustrative cases, Dr. Cabot takes up in this volume for analysis, 317 cases, covering the following 19 symptoms: Tumors, Vertigo, Dyspepsia, Hematemesis, Glands, Melena, Swelling of the Face, Hemoptysis, Edema of the Legs, Frequent Micturition, Fainting, Hoarseness, Pallor, Swelling of the Arm, Delirium, Palpitation and Arrhythmia, Tremor, Ascites and Abdominal Enlargement.

The cases selected are not often typical—any doctor would recognize a typical case—and will be of inestimable value to those wishing to improve themselves in practical diagnosis.

The general trend of these books is along intellectual rather than technical lines. They portray beautifully Cabot's methods of reasoning from a symptom backwards to the disease. Hence, these are not text-books of Diagnosis, but rather text-books of Experience.

The cases of "Shell-shock" in this new edition will be especially interesting to our military men.

Altogether these books are both unique and valuable. H.

A Practical Text-Book of Infection, Immunity and Specific Therapy, with special reference to immunologic technic. By JOHN A. KOLMER, M. D., Dr. P. H., M. Sc., Assistant Professor of Experimental Pathology, University of Pennsylvania, with an introduction by ALLEN J. SMITH, M. D., Professor of Pathology, University of Pennsylvania. Second Edition Thoroughly Revised. Octavo of 978 pages with 147 original illustrations, 46 in colors. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, \$7 net; Half Morocco, \$8.50.

The purpose of this book is to give to practitioners and students of medicine a connected, and concise account of our present knowledge regarding the manner in which the body may become infected, and the method, in turn, by which the organism serves to protect itself against infection, or strives to overcome the infection if it should occur, and also to present a practical application of this knowledge to the diagnosis, prevention and treatment of disease.

The contents embrace five chapters on "General Immunological Technic," two chapters on "Principles of Infection," twenty chapters on "Principles of Immunity and Specific Therapy." In addition, there are sixty exercises in Experimental Infection and Immunity.

In this revised edition special attention has been given Schick's test for diphtheria immunity, complement fixation in tuberculosis, a quantitative Wassermann aimed to standardize this test; Lange's colloidal gold reaction has been included and much new material on chemotherapy, etc. One of the most interesting phases of infection and immunity is embraced in the chapter on Anaphylaxis or Allergy.

The study of the life history of man's invisible enemies is one of the most fascinating in the field of science. This book tells the wonderful story in splendid style. H.

Editorial.

The University of Virginia, Medical Department,

Held its final exercises, as is usual, with those of the other schools, June 9-11. An especially interesting feature of the exercises

was the 1918 class gift to the University—a sum of money with which to start a fund for a memorial to alumni killed in the war.

The medical Faculty of the University, in accordance with a request made by the Surgeon General of the Army, voted to begin the fourth year work of the session 1918-19 on June 24, instead of at the usual time in September, thus graduating the next medical class about March 1, 1919, and making them ready for Army service three months earlier than would otherwise be the case. Other classes of the Medical School will, however, commence at the usual time in September.

At the regular Spring meeting of the Board of Visitors, leaves of absence for the duration of the war were given to members of the faculty who have entered the national service, the medical members of whom are, Drs. Wm. H. Goodwin, associate professor of surgery; Dr. Hugh T. Nelson, instructor in medicine; and Dr. Charles S. Venable, adjunct professor of chemistry.

The following is a list of graduates in the medical school with their appointments to hospitals, etc., though some are liable to change:

University of Va. Hospital, University, Va. Drs. Edward R. Hipp, Newberry, S. C.; Geo. B. Setzler, Pomaria, S. C.; Wm. Henry Turner, Jr., Afton, Va.; Wesley L. Williams, Norfolk, Va.

St. Luke's Hospital, New York City—Dr. Horace G. Ashburn, Norfolk, Va.

German Hospital, New York City—Drs. Donald MacKenzie Faulkner, Boylston, Va.; Edward W. Hollingsworth, Bel Air, Md.; Gustav Adolph Pagenstecher, San Antonio, Tex.

Post-Graduate Hospital, New York City—Drs. Robt. V. Funsten, University, Va.; Virginius B. Hirst, Purcellville, Va.; Charles P. Howze, Marion, Ala.

U. S. Old Soldiers' Home, Washington, D. C.—Dr. Allen Tupper Hawthorne, Avan, Va.

Episcopal Hospital, Philadelphia—Dr. James Edward Marable, Newport News, Va.

Queen Victoria Hospital, Montreal—Dr. John Brooks O'Neill, New London, Conn.

New Haven Hospital, New Haven, Conn.—Dr. Wm. Wyatt Strange, Huntington, W. Va.

Philadelphia General Hospital—Dr. Brice Sewell Vallett, New Castle, Del.

U. S. Naval Medical Reserve Corps—Drs. Gordon Hitt Lightner, Haymarket, Va.; Halliburton McCoy, Asheville, N. C.; Roger David Mackey, Waverly, Pa.; Walton Rixey, University, Va.; Robert Scully, University, Va.; William Wirt Waddell, Charlottesville, Va.

25,000 Student Nurses Wanted for Training in U. S. Hospitals.

With the Nation's reserve of trained nurses depleted through the calling of thousands of nurses for service in military and naval hospitals, both abroad and in the United States, the Surgeon Generals of the Army and Public Health Service, the American Red Cross, the General Medical Board and the women's committee of the Council of National Defense, unite in an earnest appeal for 25,000 young women between the ages of 19 and 35 to enroll in what shall be called the U. S. Student Nurse Reserve. The enrollment will begin July 29, 1918. Those who register in this volunteer body will engage to hold themselves in readiness until April 1, 1919, to be assigned to training schools in civilian hospitals or to the Army Nursing School and begin their course of study and active student nursing. By filling the gaps in the hospitals staffs women may serve their country as well as learn, and thus prepare themselves for service abroad and at home at the end of their course and at the same time equip themselves to earn their living in one of the noblest professions.

Surgeon-General Gorgas Should Be Retained in Office.

In appreciation of the most excellent work which Surgeon-General Gorgas, of the U. S. Army, has accomplished and is still doing, the medical press of the whole country is a unit in its desire to have him retained in his present office, at least for the duration of the war, in spite of his attaining his retiring age in October next. Though nearly sixty-four, he is much younger in the thoughts of all who know the vast amount of work he does. He has proved his capability and efficiency at all times and in all places. There can be no doubt in our mind but that a man of President Wilson's rare judgment and discretion will do otherwise than reappoint General Gorgas

to his present position which he has filled so acceptably.

Members Please Note Change in Name of Treasurer.

We are in receipt of the following communication from Dr. Mark W. Peyser: "As I am in daily receipt of dues from members of the Medical Society of Virginia, it is evident that many of them are unaware of the fact that I am no longer its treasurer; that at the last meeting, the Society combined the offices of secretary and treasurer; and that Dr. P. A. Irving, Farmville, Va. was elected to fill the position. Dues, therefore, should be sent direct to Dr. Irving."

Some Notes About M. R. C. Officers.

Capt. Lewis M. Allen, M. R. C., who has been stationed at Camp Greenleaf, Ft. Oglethorpe, Ga., for several months, has been transferred to the office of the Surgeon-General of the Army, in Washington.

Dr. P. E. Tucker, Buckingham, Va., has received a commission as lieutenant in the Medical Reserve Corps, and has been ordered to Ft. Oglethorpe.

Word has been received of the arrival in France of Drs. M. L. Anderson and J. J. Hulcher, both of this city, both connected with the Medical Reserve Corps, U. S. A.

Dr. Albert G. Franklin, of this city, who was recently appointed captain in the Medical Reserve Corps, has been ordered to New Haven, Conn.

Capt. O. F. Blankingship, M. R. C., now stationed in New York City, has been on a short visit to his home in this city.

Maj. A. G. Coumbe, who has been stationed at Ft. Worth, Tex., in the aviation corps, has been ordered to get ready to go across. He recently spent a few days with his family in Vienna, Va.

Capt. Howard Fletcher, M. R. C., of Fairfax, Va., has been transferred from Camp Pike, to New York.

Dr. W. S. Slicer, Roanoke, Va., has received his commission as captain, M. R. C., and was ordered to service July 15.

Dr. George P. Hamner, Lynchburg, Va., has received his commission as captain in M. R. C., and has been ordered to report for duty at the base hospital at Camp Greene, Charlotte, N. C.

Capt. W. Wallace Gill, M. R. C. of this city, has recently been stationed in the Medical Research Laboratory at Hazlehurst Field, L. I.

Lt. J. Stewart Gilman, M. R. C., formerly of Memorial Hospital, this city, left early this month for Camp Greenleaf, Ft. Oglethorpe, Ga.

Lt. James L. Hamner, of Amelia County, Va., is overseas with the American forces. He made three trips across as surgeon aboard troop transports before becoming permanently associated with the American hospital service.

Dr. James Campbell, of Vienna, Va., is serving in the English army.

Dr. J. Wood Jordan, Ashland, Va., has been commissioned 1st Lieutenant in the Medical Reserve Corps, U. S. A., and been ordered to Ft. Oglethorpe.

Licensed Attendants For Sick.

Private nursing is being discouraged as much as possible and all sick people are urged to go to hospitals where one nurse may attend several patients, thus relieving somewhat the shortage. Where private nurses are desired however, the State Board of Examiners of Graduate Nurses is planning to introduce licensed attendants, according to an act passed by the last session of the Legislature. A six months' course will be given at a demonstration room, where classes will be held by registered nurses in elementary bedside nursing, cooking, cleaning and care of children.

British Give 500 Bed Hospital to American Red Cross.

A fully equipped hospital of 500 beds, to be located in Windsor Great Park, has been offered to the American Red Cross by the joint committee of the British Red Cross and the Order of St. John, and the offer has been accepted.

Dr. William F. Drewry,

Petersburg, Va., who was quite ill last month from blood poisoning, is much improved, though his convalescence was for a time slow. Dr. Drewry has the good wishes of his friends all over the State for a speedy and complete recovery.

Southside Virginia Medical Association.

The sixty-first session of the Southside Vir-

ginia Medical Association was held in Suffolk, Tuesday, June the 28th. About fifty doctors were in attendance and a most excellent and timely program was rendered; every one present seemed to thoroughly enjoy the meeting.

Miss Agnes Randolph, who is working in Eastern Virginia in the interest of the State Board of Health's campaign against tuberculosis attended the meeting and gave a brief talk in the afternoon in the interest of her work. At the night session, Dr. J. Allison Hodges and Dr. Robert C. Bryan addressed a good audience in the Virginia Theatre on Red Cross work.

The meeting as a whole was one of the best in the history of the association and it is hoped that it is a token of renewed interest in the work of this organization. Owing to the unavoidable absence of the President, Dr. Paulus Irving, Dr. D. L. Harrell, 1st Vice-President, presided throughout the meeting.

The American Medical Editor's Association,

At its meeting in Chicago, re-elected its officers for another year as follows: President, Dr. George W. Kosmak, New York; and secretary, Dr. Joseph MacDonald, Jr., New York.

American Medical Association.

The sixty-ninth meeting of the Association in Chicago, this year, was of a distinct medicomilitary nature, and was of especial interest in view of the fact that these are thoughts uppermost in the minds of all doctors at this time. There was a registered attendance of 5,553 members. Atlantic City was selected as next year's meeting place. The following officers were elected: President-elect, Dr. Alexander Lambert, New York; Vice-presidents, Drs. Wm. Wishard, Indianapolis; E. Starr Judd, Rochester, Minn.; C. W. Richardson, Washington; and John M. Baldy, Philadelphia; Secretary, Dr. Alex. R. Craig, and Treasurer, Dr. Wm. A. Pusey, both of Chicago, and re-elected.

Dr. Ennion G. Williams,

State Health Commissioner of Virginia and President of the Medical Society of Virginia, was recently offered an appointment as assistant surgeon in the United States Navy. He has passed the required examinations and is standing subject to call when required. He will

continue in his position as Health Commissioner, to which he was appointed in 1908, until called for active service.

Dr. Hudson Will Return to Danville.

Dr. C. C. Hudson, who went from Richmond to Danville, Va., as its first city health officer, and who resigned about a year ago to accept a similar position at Charlotte, N. C., will return to Danville in September. The City Council offered him a substantial increase in salary and made him a proposition which he accepted. Charlotte is making a strenuous effort, however, to have him stay there.

Dr. Mary Fleming,

Formerly of Lynchburg, Va., but recently connected with a hospital at Tabriz, Persia, and for whose safety some fears were felt when that place was recently sacked by Turkish troops, is reported safe. Dr. Fleming and her party were apprised of the intention of the Turks to take the town, and took up quarters about 200 miles distant before the Turks reached the town.

U. S. Army Hospital, Richmond, Va.,

Is the name by which the Government hospital for convalescents will be known, which is now being established on the grounds of Richmond and Westhampton Colleges, just outside of this city. Maj. A. H. Crosbie, M. R. C., formerly of Boston, is in charge. The hospital is to have accommodations for 1,000 patients, and there will be a large staff of officers, enlisted men and nurses in charge.

Dr. H. H. Hibbs,

Who so efficiently filled the position as director of the School of Social Work and Public Health Nursing in this city, was called into active service in the army, and had to report for duty June 24.

Dr. and Mrs. F. L. Banks,

Formerly of Gordonsville, Va., but more recently of Slab Fork, W. Va., have recently been on a visit to friends and relatives in Madison County, Gordonsville and Richmond.

Corner-Stone of Reconstruction Hospital Laid.

Last year, the Benevolent and Protective Order of Elks, at their annual meeting in Boston, authorized an appropriation for a re-

construction hospital in that city. In November last, the Government accepted the plans for the hospital, as a gift from the Elks, and the corner-stone of the building was laid June 15, with impressive ceremonies. The hospital is being built at a cost of \$250,000 and is to contain every device and resource known to medical science to rebuild every part of the human frame.

Control of Venereal Diseases.

The State Board of Health, Richmond, has issued a synopsis of rules and regulations which they have adopted for the Control of Venereal Diseases in this State, effective June 1, 1918. Violation of these rules and regulations is punishable by fine or imprisonment or both. Those interested, who have not secured their folders, may receive them upon request sent to the above named Board.

To Applicants For Medical Reserve Corps.

Upon suggestion of the Council of National Defense, Washington, it has been decided by the State Medical Examining Board, that all applicants for enrollment in the Medical Reserve Corps may be examined in this city during the coming meeting of our State Medical Society, October 22-25, 1918. All who are considering enrollment should write in advance for their papers, to the President of the Board, Maj. Robert C. Bryan, M. R. C., Grace Hospital, Richmond, as it will facilitate and expedite the examination.

Dr. Guy Hinsdale.

Hot Springs, Va., was elected president of the American Climatological and Clinical Association, at its annual meeting in Boston, in June.

The American Surgical Association.

At its annual meeting in Cincinnati, in June, elected Dr. Lewis S. Pilcher, Brooklyn, president, and Dr. John H. Gibbon, Philadelphia, secretary.

Dr. Olin West.

Nashville, Tenn., has been elected secretary of the Tennessee State Board of Health, succeeding Dr. R. Q. Lillard, of Lebanon.

Secretary of Medical Society North Carolina.

Dr. L. B. McBrayer, Sanitorium, has been

named as secretary of the Medical Society of the State of North Carolina, *vice* Dr. Ben. K. Hays, resigned to receive a commission in the Medical Reserve Corps.

The National Tuberculosis Association.

At its annual meeting last month, elected Dr. David R. Lynnan, Wallingford, Conn., president, and re-elected Dr. Henry Barton Jacobs, secretary.

Dr. J. Breckinridge Bayne,

Washington, D. C., who was serving with the British Red Cross in Roumania when the Germans invaded that country, was believed to be dead. It has recently been learned that he remained after others of the hospital staff had fled that he might care for the wounded, and was taken prisoner by the Germans. He has been released by the Germans and at last report had reached Berne, Switzerland.

Dr. George B. Fadeley,

Falls Church, Va., has been commissioned first lieutenant in the Medical Corps, Virginia Volunteers.

Roumania Disease-Swept and in Need of Drugs.

According to German report, Roumania is negotiating with Germany for large quantities of medical materials to combat diseases, growing out of war conditions, which are raging with disastrous results in Roumanian cities. The newspapers state that in some districts the population has been decimated by the widespread wave of disease.

Miss Agnes D. Randolph.

Executive Secretary of the Virginia Anti-Tuberculosis League, has been elected a director of the National Tuberculosis Association.

Dr. Charles R. Robins

Was elected a member of the Board of Directors of Broad Street Bank, this city, at its meeting held early in June.

Smallpox Reported Among Krupp Workers.

According to a dispatch from The Hague, last month, a neutral who arrived there from Germany was quoted as stating that an epidemic of black smallpox was raging among the workmen of the Krupp plant at Essen, with four or five fatal cases occurring daily,

and vaccination of every one was compulsory. The outbreak was attributed largely to under-feeding and insanitary conditions.

Dr. and Mrs. J. Thomson Booth,

Of Ashland, Va., were guests of relatives in Williamsburg, Va., last month.

An Anti-Tuberculosis League

Has been formed in Lynchburg, Va., to secure the location near that city of one of the sanatoriums to be provided for as a result of action of the last legislature. James T. Noel, Jr., was elected president, and Dr. Mosby G. Perrow, the city health officer, secretary. Drs. Elisha Barksdale and M. G. Perrow are two members of the committee which was appointed to bring the matter to the attention of the State Board.

Dr. Howard Urbach,

Of this city, was re-elected State physician of the order of Macabees, at their annual convention in Richmond in June.

Addition to Western State Hospital.

An addition, to cost about \$25,000, is to be made to the Western State Hospital, at Staunton, Va., this summer. The work will be pushed so as to complete this addition at an early date.

Licenses Granted to Sell Liquor.

Dr. P. S. Schenck, health commissioner of Norfolk, Va., has announced that he is ready to make arrangements for the sale of alcoholic stimulants at the Norfolk city dispensary, as provided under the new prohibition law. This will be done if the council takes advantage of the provision of the new law, though Dr. Schenck made it plain that under these conditions, the sale of liquor would be restricted to amounts prescribed by physicians for the needs of their patients, and that none would be sold for beverage purposes.

License has been granted to one druggist in Richmond to sell ardent spirits under the new law. One quart is the limit which can be sold on a prescription filed by a reputable physician.

Married—

Major F. K. Travers Warrick, M. R. C., and Miss Beulah T. Pattison, both formerly of Richmond, Va., in New York, June 25.

Lt. Raymond Cottrell Hooker, M. R. C., of

this city, and Miss Esther Maude Cheatham, of Chesterfield County, Va., June 12. Lt. Hooker is now stationed at Camp Dix, N. J.

Capt. Thomas Newman Davis, M. R. C., formerly of Lynchburg, Va., and Miss Mary Ely Lancaster, of this city, July 6. Capt. Davis is at present stationed at Camp Upton, N. Y.

Lt. Dean Baldwin Cole, M. R. C., formerly of Chillhowie, Va., and Miss Llewellyn Garland, of this city, June 29.

Dr. William Meyer, Enfield, N. C., of the 1918 class Medical College of Virginia, and Miss Lottie May Roney, of this city, June 6.

Lt. Edwin Paul Kennedy, M. R. C., and Miss Miriam Tyler, of this city, July 4.

Lt. Edward Turner Ames, M. R. C., until recently an interne at Stuart Circle Hospital, this city, and Miss Ethel Miller Blanton, Richmond, June 29.

Lt. William Latane Varn, M. R. C., at present stationed at Ft. Oglethorpe, and Miss Eleanor Ford Digges, June 16. Dr. Varn graduated from University of Virginia in 1915, at which time he was appointed an interne at U. S. Marine Hospital, Buffalo, N. Y.

Dr. Talmadge Bryan Weatherly, U. S. N., formerly of this city, but now stationed at Quantico, and Miss Ruby Clinkscale, formerly of Abbeville, S. C., but recently of this city, July 6. They will make their home in Fredericksburg, Va., for the present.

Dr. Floyd J. Gregory,

Keysville, Va., was a recent visitor in this city, having come to attend the Cole-Garland wedding.

Dr. and Mrs B. Carroll Henson,

Of Big Stone Gap, Va., were visitors at Dr. Henson's old home in Louisa County, Va., the latter part of June.

Dr. A. G. Brown

And family, of this city, have just returned home from a motor trip to Philadelphia and other Northern points.

Dr. W. W. Chaffin

Was elected one of the councilmen of Pulaski, Va., at the municipal election in that city, in June.

State Orthopedic Hospital.

Arrangements have been completed for the

care of thirty-six crippled children at Memorial Hospital, this city, where the State Orthopedic Hospital is now established. The last legislature made an appropriation for this work. Dr. W. T. Graham, Richmond, is in charge of the work and will be assisted by a special orthopedic nurse, as well as by the regular staff of the hospital.

American Pediatric Society.

At the last annual meeting of this Society, Dr. Edwin E. Graham, Philadelphia, was elected president, and Dr. H. C. Carpenter, also of Philadelphia, was re-elected secretary.

New Member State Board of Health.

Dr. Thomas W. Edmunds, a prominent throat specialist of Danville, Va., has been appointed by Governor Davis a member of the State Board of Health, to succeed Dr. Lewis E. Harvie, deceased.

Dr. Wm. Thos. Rainey,

Physician for the American Aluminum Company, at Badin, N. C., and an alumnus of the Medical College of Virginia, class of 1913, was seriously hurt in an automobile accident while spending his honeymoon motoring through the mountains of North Carolina. His bride was not so seriously injured. Dr. Rainey was married June 27, to Miss Merle Louise Weaver, of Greensboro, N. C.

Dr. B. B. Wheeler,

Chief Surgeon of the Chesapeake and Ohio Hospital, at Clifton Forge, Va., returned the latter part of June from a trip to Chicago and Rochester, Minn.

Dr. H. Cowles Rucker

And family have returned to their home in this city, after a motor trip to Washington and through Maryland.

Army Diet Agrees With Men.

It has been stated by the head of the food division of the Surgeon-General's office, Washington, D. C., that the average gain in weight per soldier throughout the army is nine pounds. Menus are prepared with an idea of building up muscles and giving a maximum amount of energy. In fact this division is concerning itself with all phases of proper feeding of the army from the standpoint of

nutrition during the building up period to the special diets for patients in the hospital.

Free Clinic For Venereal Diseases Here.

For the treatment of persons suffering from specific infection a clinic is to be established at the Medical College of Virginia, in this city, and will be operated under the immediate direction of Dr. T. L. Driscoll, formerly a district city physician. Dr. W. A. Brumfield, who has recently been appointed to have charge of this work in Virginia, will supervise the work. The clinic will be free for those unable to pay.

Reducing Shell Shock.

A report sent out by the American Red Cross states that frequent cheerful letters from home help to make American soldiers less subject to shell shock. According to eminent specialists, who are dealing with such cases in the military hospitals, "a soldier who is untouched by bullet or shell may, from shell shock, return to his trench in such nervous condition as to require hospital treatment and a long rest." The best insurance against this is in the form of cheerful letters from home with the assurance that the home folks lack for nothing. For this reason, the American Red Cross has taken upon itself the duty of coming in friendly touch with the families of the soldiers, and is endeavoring to meet their needs as far as possible.

The American Therapeutic Society

Held its nineteenth annual meeting in this city, June 7 and 8. The papers presented were unusually interesting and the meeting was agreed to be an unqualified success both socially and scientifically. In addition to the annual banquet held at the Jefferson Hotel, on the last evening, luncheons were tendered the members by Dr. Beverley Tucker on the first day and by Dr. Douglas Vander Hoof on the second day. Dr. Vander Hoof was elected president of the Society for the ensuing year. The next place of meeting is to be decided upon later.

Dr. R. S. Griffith

Was elected mayor of Basic City, Va., at the election held in that place June 11. Some years ago, Dr. Griffith served as mayor for four terms of two years each.

Local Committee of Arrangements, Medical Society of Virginia.

The Richmond Academy of Medicine and Surgery has appointed the following doctors to constitute the local committee of arrangements for the coming meeting of the Medical Society of Virginia in this city: Drs. P. W. Howle, W. A. Shepherd, R. C. Bryan, A. M. Willis, St. George T. Grinnan, J. Allison Hodges, S. N. Michaux, Beverley R. Tucker, Chas. V. Carrington, and A. G. Brown.

Southwest Virginia Medical Society Suspends Meetings Temporarily.

Owing to conditions brought about by the war, the Executive Committee has decided it is best to discontinue meetings of this Society until after the war, or until such time as members may indicate a desire for another meeting. The meeting scheduled for June was not held on this account. A number of the active members have enlisted in the service of the country, and those at home are so preoccupied that it was impossible to work up a satisfactory program for the meeting.

Two New Buildings at Catawba Sanatorium.

Contracts have been let for the erection of two new buildings at Catawba Sanatorium and work will be started immediately. Each new building is to have a capacity of 50 beds, so that when these buildings are completed the Sanatorium will have 268 beds available.

Dr. Charles H. Moncure

Has returned to his home in Orange, Va., after a visit to Biltmore and Asheville, N. C.

Dr. Benj. J. Willingham,

Of Wilmington, N. C., has been the recent guest of relatives in this city.

Dr. C. S. Webb

And family spent some time last month visiting relatives in Orange County, Va.

Dr. John Staige Davis,

Of University, Va., was a visitor at White Sulphur Springs, W. Va., in June.

Dr. W. H. Higgins

Has been temporarily placed by the Administrative Board, on the staff of the Virginia

Hospital, to relieve Dr. Douglas Vander Hoof, who has other pressing duties.

Dr. W. A. Baker,

Big Stone Gap, Va., was a visitor in Abingdon, Va., the latter part of June.

Members Richmond Council of Defense.

The following doctors were named on the committees of the local Council of Defense, which was only recently organized: Drs. Roy K. Flannagan, Robert C. Bryan, Beverley R. Tucker and Charles R. Robins.

New Acting Superintendent at Virginia Hospital.

Miss Hattie Taliaferro, who has been connected with the Mary Washington Hospital, Fredericksburg, Va., has been elected acting superintendent of Virginia Hospital, this city, effective July 1, 1918, to succeed Miss Ruby Parrish, resigned.

Mississippi Valley Medical Association Postpones Meeting.

After a discussion of the subject from all sides, it has finally been decided by officers of this Association to postpone the 1918 session, as a war measure. The next meeting will, therefore, be held in Louisville, Ky., after the war, under the presidency of Dr. F. M. Pottinger, Monrovia, Cal.

Dr. M. D. Hoge,

Richmond, has been elected a member of the City School Board, to succeed Dr. J. M. Hutcheson, recently resigned to enter the medical service of the army.

Dr. James E. Smith

Has been re-elected physician to the City Almhouse in Petersburg, Va.

Dr. Joseph M. Burke

Has been named a member of the Petersburg, Va., Council of Defense.

For Sale in Virginia.

A \$4,500 contract and private practice, with modern 8-room house, steam heat, gas lights, garage and other necessary out-buildings. 74 acres good farm land. Located near village of 600 inhabitants; good schools and churches. Will sell for \$7,500 account of going into service. Address "M. R. C.," care this journal. (Adv.)

Location Wanted.

An experienced physician of Richmond would consider a change of location to a community having good schools and good roads, provided there is a prospect of his securing a cash practice of \$300 a month. Address "X. Y. Z.," care this journal. (Adv.)

Obituary Record.

Dr. Richard Saunders Martin,

One of the most widely known and respected physicians of this State, died at the hospital of his son, Dr. Moir S. Martin, Mt. Airy, N. C., June 23, after an illness of long duration. He was born in Stokes County, North Carolina, November 15, 1859, and received his early education at private schools. After this, he studied medicine at the College of Physicians and Surgeons, Baltimore, from which he graduated in 1881. In 1884-5, he served as resident physician at the Maryland Hospital for Women. He had for a number of years been active in the medical affairs of this State and was president of the Medical Society of Virginia in 1901. He was elected a member of the Medical Examining Board of Virginia in 1892, and was its secretary until 1912, at which time he was elected president, which position he held to the time of his death. He was also one of the associate editors of the *Virginia Medical Semi-Monthly* for several years. He founded and for a number of years conducted a private hospital known as Mother's Home. His activities were not, however, entirely limited to medical affairs as he was a member of the House of Delegates of the General Assembly of Virginia, in which he was connected with several important committees, among them being the committee on moral and social welfare and the one on asylums and prisons.

Dr. Martin was twice married and is survived by his widow and three children. The interment was made at Stuart, Va., where he had for so many years practiced.

Dr. Lewis Edwin Harvie,

Another prominent and beloved physician of this State, passed away at his home in Danville, Va., June 16, after a lengthy illness. He was born in Richmond, May 15, 1843. After graduating from the Virginia Military Insti-

tute, he entered the Confederate service in the War between the States. Upon the completion of this service, he studied medicine at the Medical College of Virginia, graduating in 1867. He was a charter member of the Medical Society in 1870 and its president in 1897-8. He was also identified with a number of other local and national medical societies, and was a member of the State Board of Health. He is survived by his widow and a number of children and other relatives.

Dr. William F. Creasy

Died at his home in Newport News, Va., about the middle of May, aged 54 years. He was a native of Pennsylvania but received his academic education at the A. & M. College, in Blacksburg, Va. Shortly after graduating from University of Maryland, School of Medicine, in 1890, he located in Newport News, where he had since made his home. He was an ex-president of the local medical society, physician to the city jail, and quarantine officer of the port of Newport News. He was also a member of the State and other medical societies.

Dr. D. Frank Geil,

Of Broadway, Va., died June 24, as a result of paralysis. Early in the morning, he left home apparently in the best of health, going to his farm, a few miles from town, and, while riding the binder beside his manager, he was paralyzed. He was immediately removed by automobile to his home, but died before medical assistance could reach him. He was fifty-four years of age and a graduate of the College of Physicians and Surgeons of Baltimore, in 1893. He is survived by his widow and three daughters.

Dr. E. L. Branscome,

Of Galax, Va., committed suicide June 22, by taking a dose of poison, and had been dead for several hours when found. He had a large practice and was considered in easy financial circumstances. He leaves a wife and six children. He was about fifty years of age and had graduated from the University College of Medicine in this city, in 1901.

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Original Communications.

THE RESPONSIBILITY OF THE PHYSICIAN TO THE SYPHILITIC AND THROUGH HIM TO THE STATE.*

By THOS. W. MURRELL, M. D., Richmond, Va.
Associate in Syphilis and Dermatology, Medical
College of Virginia.

In these days and times the responsibility of the individual to the State is taking on a new meaning. We are called on to make sacrifices of all kinds and many of us are allowed the great privilege of making the great sacrifice in the preservation of our country and its ideals.

Without detracting from the supreme sacrifice in war it is nevertheless true that men will rise to great crises when they neglect the lesser needs. Our duty to the State is as real in peace as it is in war and the minor responsibilities in total equal the larger responsibility.

The physician's life is intimately connected with the welfare of the State. When he restores a man to health he has converted a liability into an asset. In saving the child, conserving the fruitfulness of women, and protecting the community by public health measures, he is rendering the state a real service which, if necessary, can be stated in an enormous total of dollars and cents.

On the other hand, errors of practice and the neglect of useful knowledge create a waste of human material and the careless physician, even though careless through ignorance, becomes in fact an enemy of the State.

We have many, though pitifully inadequate

state institutions for our unfortunates of various kinds. There are the asylums, the epileptic colony, the reformatories, classes for backward children and the penal institutions, jails and penitentiary. These institutions are but graded steps in mental decline and the sequence is, classes for backward children, the reformatories, jail, penitentiary and finally the asylum. There can be no doubt that crime is to a large degree a medical problem, since it and insanity are close akin. It would be a matter of interest and value if a Wassermann survey could be made of the public institutions of Virginia. From what has been done an estimate may be made of the probable result and the necessity of such a step.

In the psychological clinic of the dispensary of the Medical College of Virginia, Dr. W. H. Higgins found 40 per cent of the defective children sent to him from the public schools had positive Wassermans.

My assistant, P. Lewis Witchley, while pathologist to the Eastern State Hospital, ran a series of 1,019 Wassermans on a like number of patients, with 19.1 per cent positive. Later on he and Dr. A. C. Belcher, with the permission of Dr. W. F. Drewry, ran a series of 2,000 Wassermans at the Central State Hospital for negroes, with 27.5 per cent positive, the combined average on these 3,000 individuals committed to insane asylums being 23.3 per cent positive, or 699 out of 3000 patients were affected by syphilis.

The writer is confident the percentage would be as high were such a survey conducted at the State Epileptic colony, and feels sure that a lesser per cent but still a large one would be found in the reformatories for both sexes,

*Read before the Southside Virginia Medical Association at Suffolk, Va., June 18, 1918.

and in the jails and penitentiary.

The most gloomy of syphilis statisticians credit one person in 20 or 5 per cent of humanity as being syphilitic. This is considered dramatic and striking yet it pales into insignificance by the 1 in 4 of these state institutions.

This state of affairs is intolerable, but to be corrected must be corrected at its source. There are certain cases of syphilis which seem to resist all treatment but it is not far wrong to state that the large per cent of these insane syphilitics are so because of professional neglect. There is one error connected with all this, an error that has crept into the medical profession from the laity and this is the high value placed on human life and the low value on human efficiency. The doctor becomes busy when death is near for a man dead is a case lost and a man living is a case won, yet all too often the man living were better dead than to rot out his life in an asylum and he and his infected descendants, the state and all concerned were better off had pneumonia attacked him instead of syphilis. The time will come when the existence of a paretic will be a reproach to the physician who first handled the case. Ignorance and carelessness have been at the bottom of it all, but ignorance has never been a valid excuse and carelessness may well become a crime. Apathy is cruel when it is gambling with another man's life, taking the chance that this patient will not develop central nervous infection.

If it takes ten years to build up a representative practice, then the bulk of the practice of this country is handled by men who graduated prior to 1908. At that time the discovery of the spirochete was still a biological novelty, the Wassermann an unused recent discovery, while syphilis was being treated on the dogmatic lines of clinical observations of the previous century. Some of these teachings which were once meritorious have now become pernicious, yet because we are in a transitional stage these old ideas and dogmas still cling to us, and I would call your attention to a few that are hard to shake and are at the root of much of the evil we have just referred to.

The *first error* is that of waiting for symptoms of general infection to diagnose the venereal sore. This idea, entirely correct 15 years ago, is now criminal. In those days the chan-

croid was the most common venereal ulcer but many observers have noted the chancroid is a slowly disappearing lesion and in time may become extinct. On the other hand, syphilis is increasing and the chancre is seen with greater frequency. The pathology of all specific lesions is the duplication of the pathology of the chancre, and when the eruption stage arrives it simply means one focus has been multiplied into untold legions of similar foci. Obviously, treatment has a larger chance of success in combating the single point of infection.

In all cases the spirochete can be demonstrated in chancres if seen before the application of germicides. The dark field apparatus is not expensive, but if one is not prepared to do this work there is no reason to trifle with the situation. If unprepared to do this work it is just as necessary to send a patient to a laboratory for dark field diagnosis as it is to send suspicious tissue for cancer diagnosis or sputum for tuberculosis. This initial stage is the one chance for radical treatment and while not always successful our files show a so much higher percentage of negative Wassermanns in cases so treated as to justify these statements.

The *second error* is the idea of a course of treatment. In brief it is that a syphilitic requires treatment for 3 or 4 years and further that such a line of treatment is curative. This idea dispenses with the Wassermann as other than a diagnostic measure. There is no set time to produce a cure. Cures have been produced in the chancre stage by one dose of salvarsan though it is unusual. It has taken months and years in other cases to produce a cure when every known method of treatment is used. The cure at present can best be gauged by the Wassermann, and further the Wassermann is used to guide the treatment. It is not far wrong to say that the modern treatment of syphilis requires at least six Wassermanns during the infection and in years following to prove the cure.

The *third error* is the gauging the severity of the general infection by the severity of the skin and mucous lesions. Cases of pronounced skin and mucous lesions with fever were erroneously termed malignant syphilis and when these were absent were just as erroneously termed mild syphilis.

Of course there are varying grades of sev-

erity of the disease, but it is probably true that these differences just mentioned are due to infection with strains of spirochete with a selective action on certain body tissues. We have such strains in other organisms and Noguchi cultured many different strains or types of spirochete. Witchley has observed a peculiarly long spirochete in several of our dark field cases which appears identical with a long spirochete he has seen in tissue sections of the brains of paretics. This he has named the spirochete nervosa and feels it is probably the spirochete with selective activity on the central nervous system.

It is well to forget the term mild syphilis. There is no more such a thing than mild pneumonia or mild tuberculosis. Any and all syphilis requires intensive and extended treatment until the Wassermann is negative.

The *fourth error* is that gumma are apart from active syphilis and do not need anti-specific treatment, requiring only the iodides. It is true gumma are non-contagious and partake largely of the nature of new growths but they are none the less syphilis. As syphilis, the mercurial and arsenical treatment are needed, and this is particularly true in brain involvement where the iodides reign supreme in the average medical mind.

The *fifth error* is the belief that central nervous infection occurs late in the syphilis scheme. It is probably true there is no such thing as late involvement of the central nervous system. It is certain that many of such infections are a part of the general systemic infection and many are treated and cured who had no suspicion of such involvement. The reverse of this is unfortunately true and many a patient is walking around to-day secure in his faith in a negative blood Wassermann who will in a few years awake to the tragedy of tabes or the hopeless horror of paresis.

Fordyce has adopted lumbar puncture as a routine in his examination of the syphilitic. He has found a fair percentage of his early cases with central nervous involvement and these are the cases he is treating as a prophylactic measure and with some assurance of cure. We do not as a rule cure tabetics; however, they improve in gait or pain; but paresis is practically if not entirely hopeless.

Fordyce's claims to the value of the intra-

spinal treatment as a preventive of these diseases is surely logical and scientific.

The day must come in the light of our growing knowledge when the lumbar puncture will be a part of our routine syphilitic diagnosis and therapy. It should not be undertaken lightly and is never an office procedure. It may be done at home but when possible should be done in a hospital when the patient is watched and kept prone for 24 hours. In the average case the puncture is a matter of little moment and if the patient is kept prone with the foot of the bed elevated for 24 hours and not allowed to exercise for the next 24 hours, there is entire chance of no disagreeable after-effects. On the other hand, the patients who disregard these instructions, get up to stool etc., may have an alarming and terribly miserable time with headache, nausea and malaise.

The main importance in preventing these disagreeable after-effects of spinal puncture is that in the event of syphilitic involvement of the cord being proven, the physician may wish to institute intra-spinal therapy and these disagreeable results will impel the patient to refuse further punctures.

The surgeon has so drummed his wares that now the layman is demanding early operative intervention in appendicitis. This same layman is beginning to demand the blood Wassermann.

This is good but he must be further educated so he will become acquainted with the commonness and detectability of central nervous syphilis. He must be acquainted with the commonness and hopelessness of developed tabes and paresis. He then will demand the spinal puncture and the State will begin to benefit.

So we physicians have a double task. We must convince ourselves of the rightness of these ideas so as to transmute them into deeds. We must further pass on this knowledge and drive it into the minds of our patients, for only when the public fully accepts our medical discoveries will we begin to get the results they justify.

Conclusion.—The actual burden of the State in the care of defectives and dependents is upon the shoulders of the profession to prevent such occurrences.

No expense should deter us from using any and all of the laboratory procedures which will

aid us in diagnosing and treating syphilis.

The occurrence of tabes and paresis is in most cases not an evidence of malignance of infection but of a selective type of infection.

The occurrence of tabes or paresis is further not an untoward accident but a direct neglect. The profession should no longer shirk such a responsibility.

17 East Grace Street.

MENTAL DISEASE IN THE YOUNG.*

By SUSAN A. PRICE, M. D., Williamsburg, Va.

In the ever-widening area of medical research, nowhere do we find more of interest and importance to the happiness and welfare generally of the human race than the observation and study of abnormal mental conditions, especially any abnormality or retardation of mental development in the young. No other branch of medical science presents such unsurmountable difficulties or greater problems to solve than the study of mental diseases in all its various phases and subdivisions, and no other branch of medical science offers a more brilliant reward in the future than the solution of the problem of the proper care, treatment, or prevention of the ever-increasing number of mental defectives.

So long has the attitude towards the mentally incompetent been an attitude of uncertainty and doubt that we have become dulled into accepting conditions that appear to be inevitable, and continue to see many of our fellow-beings sink to a low level, an ever-increasing sorrow, burden, and menace to the community. It is a condition in which familiarity has bred indifference, if not contempt, for we have always had the feeble-minded to contend with, and often complicated by many super-imposed psychoses, and thus many continue to go down in the wreck and ruin of mental downfall for want of vigorous action that might evolve some definite plan to offset the fearful waste brought about by lack of proper care and proper training.

Abnormal mental conditions in the young present great variety in their range—from the young unfortunate of the utmost simplicity and total intellectual barrenness to the high grade imbecile and the Moron, whose mental endowment approaches nearest to that of a normal mind. Between these types of psy-

choses in the young we find many varied, complicated and interesting cases; the idiot with his various gradations according to the extent of the arrest of brain development, up to what may appear a disturbance of brain development, and these various gradations of intellect form the feeble-minded class, which, according to published statistical reports, greatly outnumber the insane proper. To house and to give proper custodial care or re-education to the feeble-minded would mean, it is said, at least to increase the capacity once, perhaps twice or three times, of all the hospitals for the insane in the land, and this is a very serious statement to face. No state will bear the stigmata that her insane are not properly housed and cared for in a humane and competent way, as conditions will allow, and advances in the care and treatment of the insane have been marvellous without a doubt, but not the same advance is being made in the care of the feeble-minded, as we regard the feeble-minded.

Every day finds this problem farther from being solved, as the country slowly awakens to the urgent need of supervision and treatment of this ever-increasing number of young mental defectives. When we consider that the strength and very existence of the nation depends upon the physical and mental health of its people, how very important it is that the care and protection of the feeble-minded should be of the most comprehensive and rigid sort, instead of the spasmodic and desultory efforts made to correct weak-mindedness without regard to the future, and the disastrous effects of which neglect is apparent every day in the many who show the hereditary tendency to mental downfall, which ought to have been prevented.

Of much interest and importance is the study of the deviations of mentality demonstrable before the period of adolescence, and the list of those cases is long, grading upwards from the congenital idiot, often with gross physical defects; those early stunted from disease or injury; the many varieties of weak-mindedness due to the epilepsies; and the large number of cases in which mental development apparently suddenly ceases without a demonstrable cause, and often these cases are ascribed to adolescence and we have the high-grade imbecile or Moron to deal with, whose number constitutes a large percentage of those de-

*Read before the twenty-second annual session of the Seaboard Medical Association, in Norfolk, December 5, 1917

manding supervision and institutional care, although the seriousness and duration of their symptoms may vary so widely. These cases most often come under observation for the first time at the period of adolescence, a period which often seems to have a direct bearing on mental development and mental stability. Adolescence is a period of undoubted importance and when most vital functional development is in progress; a period of life invariably recognized even by the most primitive and casual observers of the human mechanism as a critical period, not only on a physical basis, but often given as a starting point for an endless variety of insanities that have been traced to puberty, no doubt on account of the nervous associations roused into action, with the resulting disturbance of consciousness, thus making a fertile field for mental disturbance.

This time of altered conditions in the young and their far-reaching effects, must not be lost sight of in forming an opinion of mental confusion, but the mere fact of adolescence and changes at puberty as such are often much over-estimated, and too much importance and emphasis laid on the natural changes of the human organism. We are impressed continually with a statement that such grave types of mental reaction date from this period in the young patient's life, for how often, in a psychiatric as well as general way, are we told that a certain patient was all right up to a certain age, when there occurred the overwhelming of intellect, for which no treatment, however prompt or radical, was of avail. So often do we see these cases that we can almost persuade ourselves to believe there is some natural law at the time of adolescence that can develop suddenly a destructive mental process in the young that, unless checked, leads to dementia, when the truth is, we have to deal with a weakling, whose early lack of intellectual endowment and strength had been neglected or overlooked all through a more or less irresponsible childhood, and when the age of adolescence was attained, with altered conditions in the child's life, general incompetence asserted itself, and instead of having an acute psychosis to treat, we have to deal with a more or less systematized young lunatic, whose condition has been slowly and surely developing from infancy, the earlier stages consisting of an ill-defined nervous propensity, which later on developed into chronic and complex nervous disorders, which treatment is powerless

to restore, and the patient becomes an easy victim to neuropathic conditions.

For generations attempts at classification of the feeble-minded were neglected. The line of demarcation was imperfectly indicated between the harmless and the more vicious subjects, which was, for convenience, divided into what was known as the restless and the stupid type, the restless type consisting of those whose acts more or less were repeatedly in serious conflict with established social and legal customs and demands, the stupid type those too dull to commit any crime except against their own well-being; and the treatment consisted in dealing with each case as it was presented. Hardly any practical thought or effort was given to any method of prevention, training or discipline that might benefit mental defectives, to become safe or desirable citizens. We have tended toward the plane of small resistance until now we have become awakened to the responsibility and the stupendous work of stemming the tide of mental deficiency, which threatens to overwhelm us, as shown in the increase of criminals, epileptic degenerates, paupers, prostitutes, and all mental defectives who demand houses of correction, jails, asylums, almshouses, homes for the friendless and sanitariums, which are found in such numbers all over this broad land.

And yet these asylums are not considered any permanent abode or of radical benefit; only a temporary protection. Dr. Fernald, of Massachusetts, says that "only when the actual number of this dangerously potential class of feeble-minded is realized will they be given life-long care and supervision in satisfactory institutions, combining the educational and developmental methods of a school for the feeble-minded and the custody and security of a modern penal institution, safeguarded by careful and repeated expert examination and observation."

Since the old days of the classification of the restless and the stupid, it has been said that clinical types and shadings of mental deficiency have become familiar to the alienist and special student of abnormal mental conditions which have not been so definitely formulated and classified as to be readily recognized by the profession generally. But this claim has not held good in regard to feeble-mindedness, for the high imbecile, as well as his lowly brother, the idiot, emerges from the cradle and always bears more or less distinguishing

marks of his deficiency.

No doctor of public health or hygienist of the present day should fail to make a diagnosis and prognosis of the early signs of mental deficiency in the young; to predict without qualification the inevitable result and far-reaching disastrous effects if not checked and prevented in his persistent natural tendencies, so often immoral and criminal in form, and adequate laws and methods should be adopted to prevent other helpless and defective children from being brought into the world to surely follow in the footsteps of their disordered parentage, to easily drift into any of the many forms of mental disorder daily impressed on our attention. It is stated that probably more than two-thirds of all cases of insanity are due to a defective hereditary basis.

We have at the present time nothing to base our hopes upon that the same excessive rate of mental deficiency that is prevailing now will not prevail in subsequent generations. Nature's unchangeable law decrees that like shall produce like.

Feeble-mindedness is a national problem, if not a national menace, which must be studied and solved on vigorous lines that other national problems are solved, if we are to remain a great nation. which has only recently declared by a united voice a demand that delinquency in every form be reduced to a minimum. that all forms of preventable chaos and disorder be dealt with so effectively that every intelligent person in the land shall have a part in the upholding of the nation. Mental defectiveness is the one thing that stands in the way of this nation reaching the highest efficiency and modern civilization demands that the world be freed from a burden that causes such endless waste of humanity in disease, crime, poverty, unhappiness, and all the unmeasured evil that finds so many ready victims in the mentally deficient.

Eastern State Hospital.

THE USE AND ABUSE OF DRUGS AND ANESTHETICS IN OBSTETRICS.*

By HENRY CLAY SMITH, M. D., Crewe, Va.

Other medical problems may come and vanish but the problem of obstetrics, like the poor, will be with us always. So it behooves the medical profession to carefully and intelligent-

ly study this subject, to learn its effect upon mother and child at the time of delivery and the end results.

This is too broad a subject to cover fully, but I trust this paper will cause us to think deeply enough to see a real indication for the use of drugs and that we know the action of the drugs to be used before using them.

In recent years there has been a strong tendency to interfere with the normal process of labor due largely to the demand of the laity for a painless birth, which has been agitated by the press, and there has been a failure of the attending physician, in many instances, to have enough courage to disregard all clamoring for chloroform and other drugs and to do just what is really indicated.

I shall mention some of the drugs most often used in obstetrics, stating briefly the principal indications for their use and the disadvantages when improperly used:

Chloroform: This is a valuable anesthetic in preventing lacerations, when used to lessen the force of the pains, if they are very strong, just as the head is delivered. It is valuable in manual delivery of adherent placenta and in short instrumental deliveries.

The abuse of this anesthetic consists principally in its indiscriminate use whenever patients call for it, in many instances prolonging labor, causing hemorrhages and lowering the resistance of mother and child.

Several years ago a physician asked me how I controlled hemorrhages in my obstetrical work. I stated what I would do under various conditions, but that I had never had any hemorrhages that amounted to anything. I asked if he used much chloroform and he stated that he used it in every case. I advised him to discontinue its use unless there was real indication for it and he would not get the paralyzed condition of the uterine blood vessels and muscles and resulting hemorrhages.

The patients I have attended that gave a history of severe hemorrhages at previous confinements almost invariably gave a history of having chloroform and in many instances without instruments being used.

Ether should be used if we have reason to believe that instrumental delivery will be prolonged. But we should be careful to see that there is a real indication for forceps delivery and not merely an impatient obstetrician be-

*Read before the Southside Virginia Medical Association, at Suffolk, Va., June 18, 1918.

fore we use either chloroform or ether.

Morphine and Scopolamine: These drugs have been weighed in the balance and found wanting.

Morphine is sometimes valuable in cases where the patient is very nervous, but usually a sterile hypodermic answers the purpose and should always be tried before morphine is given.

Scopolamine is a drug that is apt to cause serious trouble both to the mother and child if not carefully watched, and at times, even with the most careful watching, its effect gets beyond the control of the obstetrician. It causes early depression of the respiratory and vasoconstrictor centers, and in a great number of instances has caused collapse.

We know that infants have a hypersusceptibility to opium preparations; we know that scopolamine has a powerful effect in knocking out uncontrollable drunkards; we know that the infant mortality is high due to low resistance. Putting these facts together, we can only arrive at the conclusion that "twilight sleep" under the most favorable conditions has had effect up on the mother and a far more injurious effect upon the infant, especially in hot weather.

A good many cases that should be normal are converted into forceps deliveries by the use of these drugs, with increased lacerations. Yet obstetricians and parents wonder why these "doped" babies get along so badly.

Pituitary Extract: As we note the frequent and indiscriminate use of this drug, it should be evident to every obstetrician who knows its action on the uterus, that it is doing far more harm than good.

My own experience is that I have never had but one case in which it was indicated, and I did not have it with me at that time, so I had to make a very simple forceps delivery.

Doctor DeLee in a paper read before the A. M. A., June 1916, expresses the status of pituitary extract in far better language than I can use. I quote him as follows:

"Of all the meddling practices, giving pituitary extract is the most dangerous to mother and child. Sixteen cases of rupture of the uterus produced by pituitary extract are on record. Dr. Stowe, my associate, knows of two. Others have been recounted to me, and I doubt not that many more have occurred and have never been reported. Hardly a month

passes but what I learn of cases in which the baby has been lost in labor rendered pathologic by pituitary extract. I myself have observed the bad effects of pituitary extract on the child. Lacerations of the cervix and perineum are frequent results of the violent rapid delivery under the influence of the drug. I have used it a great deal. First I gave 15 minim doses. Now I give 3 drops, and on special indication only. Recently I gave 3 drops to a woman weighing 180 pounds and the resulting contraction of the uterus was so powerful and prolonged that I had to put the patient asleep with ether. This contraction lasted more than five minutes and the fetal heart tones almost ceased. Pituitary extract should not be used except in presence of a real scientific indication, that is, the head must be engaged, the cervix completely dilated, no mechanical disproportion between the child and maternal parts, etc." (DeLee, *Jour. A. M. A.*, Oct. 14, 1916).

Drugs for the relief of after-pains: Morphine, bromides, etc., have to be used at times, but I think they are used a great deal oftener than necessary.

The principal cause of after-pains is blood clots, and the pains from this cause can be avoided in almost every case if we elevate the head of the bed from 6 to 12 inches, just as soon as we find that there is no danger of hemorrhage.

I adopted this plan of elevating the head of the bed about four years ago, and the results have been very gratifying. I have attended a number of patients who had suffered a great deal during previous confinements from after-pains, several of whom asked me before delivery to leave something for the after-pains, but they got relief by the elevation of the bed.

In elevating the bed we simply get the surgical principle of free drainage. This elevation, accompanied by forced water drinking, gives a thin lochia with no blood clots and with very little, if any, rise in temperature.

The woman who is not willing to bear a reasonable amount of pain to produce a healthy offspring should not become pregnant and the physician who has not the time and patience to permit labor to terminate normally, when it will do so in reasonable time, should leave this work for someone else, and not resort to "meddlesome mid-wifery."

CO-OPERATION FOR THE DEFEAT OF IMPROPER AND BLACKMAILING CLAIMS AND SUITS FOR MALPRACTICE.*

By H. T. WESTON, M. D., Hartford, Conn.

A paper prepared by Dr. Geo. Gay of Boston, Mass., published in the *Boston Medical and Surgical Journal* of September 7th and 14th, 1911, entitled "Suits for Alleged Malpractice", reviews the conditions that confronted the profession in Eastern Massachusetts at that date most comprehensively.

He calls special attention to the necessity of the profession giving this subject more attention and developing some means of overcoming the tendency of such claims and suits to multiply.

He emphasizes his belief that one of the most active causes of such suits, is the willingness of doctors to pay or permit their insuring Company to pay money for settlements in these cases, instead of defending them to the Court of last resort.

I quote his language which it seems impossible to improve upon:

"Settlement of these claims encourages imposition and extortion. The principle is wrong and the practice is worse."

"While malpractice suits against reputable physicians may and generally do give rise to an infinite amount of trouble, anxiety and no little expense, yet the writer cannot believe that they do much permanent harm to their reputation or their business."

"So long as there are ungrateful patients and pernicious lawyers and doctors, physicians, however accomplished and renowned, must run the risk of being haled into Court upon the most unjust charges and put to the trouble and expense of defending themselves, their reputation, their character and their bank account, if they be so fortunate as to have one, against the blackmailers and ambulance-chasers that infest every community."

"Making due allowance for human limitations, the cases are rare in which a respectable physician should be haled into Court and made the victim of public criticism, censure and pecuniary profit. And, furthermore, the instances are still more rare in which it is a physician's duty, or in which he is justified, in appearing in Court as an expert against

a reputable practitioner who is defending himself in a suit for alleged malpractice."

"In the interests of a square deal, of right and justice, the honorable physician should be safe with his fellows and associates."

"Care, forethought and discretion would seem to be our only safe-guard."

"The physician is legally and properly bound to exercise due care and skill in the treatment of his patients. Having done this, he is not responsible for the results in the case, whatever they may be."

"No qualifications suffice to protect the physician from these assaults."

"The law does not sanction experiments in our profession in the care of the sick. The moment the physician departs from the usual and accepted mode of treatment of a case, he renders himself liable to action should the termination be unsatisfactory. The consent of the patient given before witnesses and duly recorded would be the best possible defense under these circumstances."

"Reasonable and ordinary care of the case committed to him. Exercise of his best judgment in cases of doubt. These promises he takes with him to every sick room."

"No physician is legally obliged to respond to any call for his professional services."

"A doctor is not a public servant, as is a policeman or a fireman."

"Prompt and repeated consultations should be requested in difficult and obscure cases, for the double purpose of avoiding error and dividing responsibility."

"Careful and explicit explanations of the nature of serious cases, together with the complications liable to arise and their probable termination, may well be given to the patient or to some reliable person early in the attendance. This for our own protection."

"Anesthetics should never be given to women except in the presence of one or more of their own sex."

"The records of the X-ray should rest in the hands of the family physician or his consultant, rather than be brought into the case from the outside."

"The value of careful records of our cases is in evidence under many different conditions,—hence the importance of complete notes as to dates, events, names of consultants, nurses, assistants, visitors, etc."

*Read before the Richmond Academy of Medicine and Surgery, May 14, 1918.

"Under certain conditions complete notes might prevent legal proceedings, and in many other conditions may be of considerable importance."

"In the event of suit, or of a threatened suit, the defendant should neither talk nor write letters relating to the case in question, as anything he may say or write may be used against him in court."

"Have no communication with the plaintiff except with or through the counsel. It is the business of the attorney to handle these affairs."

"Reputable physicians recognize their duty and their responsibility to the public. They have prepared themselves by hard work and the expenditure of time and money to fulfill those duties in a reasonable manner. Their fitness to practice their profession has been certified by the State. They are ready at all times to respond to demands for their services regardless of compensation. Their services are for the poor and the rich."

"No profession does so much gratuitous work for the public as does the medical profession."

"The public having a clear understanding of the facts mentioned in this paper, cannot in justice and reason blame the members of the medical profession for their determination to stand together in opposing and contesting unjust claims brought against them for alleged malpractice, claims brought more frequently, perhaps, by their charity patients than by others: for rejecting all overtures looking to a settlement of these claims out of Court: for resorting to justifiable measures, as medical defense organizations, etc., to protect themselves against imposition and blackmailing schemes for extorting money; for declaring that an unjust claim against a respectable physician, lies against not an individual, but an association of hundreds or even thousands of individuals, whose policy and whose practice is to contest all claims of this sort to the last extremity rather than compromise or settle them out of Court."

"Let the public understand that reputable physicians are a unit in this matter: that they will stand by each other in their defense of the right as against the wrong regardless of time, trouble and expense; that we mean to do our best for the welfare of our patients

and having done that, we naturally resent being called upon to defend such action at law."

I have quoted Dr. Gay at such length for the reason that I feel that his thought is the result of much experience and presented more clearly and forcibly than I could hope to present the same views.

When he had retired from practice, after over forty years of active work, he continued to study and interest himself in this subject.

I desire to acknowledge the great assistance he gave me toward formulating the Etna Group Plan for handling these matters.

In my search for information as to how best to provide a means whereby the Etna could join with the professions and assist in defeating the growth of the malpractice evil, I sought an interview with Dr. Gay, at which he did not hesitate to express his disapproval of the idea of malpractice insurance, saying that, "If it was not for the insurance Companies, we would not have one-tenth the number of these cases; they settle every case they can, and each settlement breeds ten more claims sooner or later."

He felt that it was useless to try and reconcile the professional interests of the doctor, with the business interests of the insurance company, also that they would never surrender their advantage, through their dealing only with one man, the assured, when a case arose.

When I submitted the draft of our Group Policy to him for criticism, he told me I was wasting my time: for no Company would be willing to place the decision that might involve the spending of thousands of dollars in the hands of any number of doctors.

When I stated our purpose to offer this plan as our contribution toward developing a spirit of co-operation and as an evidence of our purpose to extend Etna service to the professions, he said, "It is too good to be true."

Such an approval gave us much encouragement toward proceeding with the plan.

When we review the records since 1911 we find that this class of cases have greatly increased, particularly since 1914 when the effect of Massachusetts Compensation law began to reduce the field for the class of attorneys who devote their energies to the bringing of personal injury claims and suits.

The same result may be expected in your State, seeing that you have adopted a Workmen's Compensation law.

In the period of readjustment, special attention should be paid by the members of the professions, to achieve an efficient and practicable plan of co-operation, toward removing the possibility of success in the prosecution of improper claims and suits for malpractice damages.

We offer our best efforts toward such an accomplishment.

We firmly believe that an ounce of prevention is worth a ton of cure in these cases.

We ask that you consult with us when in doubt in any particular case.

If our local representatives cannot answer your question they will find some one that can.

We thoroughly believe that our assured are entitled to our best efforts from a service standpoint, in addition to our paying losses when they arise.

We feel that we are justified in asking the members of the professions to choose our service, rather than that offered by our competitors, if for no other reason than that we are trying to make conditions better instead of worse.

The contract of insurance that we have formulated and offer as our Group Plan is as broad and provides the most complete coverage possible without contravening public policy, so far as the hazards that arise through the practice of the profession are concerned.

When considering this question of liability it must be remembered that there is a vast difference between what may be termed professional hazards and business hazards.

Practicing the profession of medicine or dentistry presupposes a patient who receives either personal service or service rendered in accordance with the instructions given another by the attending practitioner.

Such instructions might be followed out and the service rendered by an assistant in the absence of the attending physician or surgeon and still he would have his protection under our policy.

However, we desire to call your particular attention to the fact that, in a case where no instructions were given by our assured, and a patient was treated at our assured's office by his assistant and it was claimed that an error

or mistake was made by the assistant and it caused damage, then we would regard such a case, one in which the assistant was practicing his profession and the patient was his, and not our assured's patient.

To be certain that all suits and claims are covered and properly defended at a minimum cost, you can readily see that each practicing assistant should be insured, preferably by the same Company as the principal.

There is an entirely different hazard which can be properly described as a business hazard as distinguished from the professional liabilities above referred to:

To illustrate, Drs. A., B., C., form an unlimited copartnership under which a liability of C.'s, can be collected from either A. or B.; if judgment was secured against all jointly it could be collected from either; if A. and B. were insured under our policy or any other Company's policy that we know of, and C. was not insured, when C.'s loss was paid by A. or B. it would not be paid by the insuring company, because it was not a loss that arose through either A. or B. practicing their profession.

There is also the business hazard that confronts the owner of a hospital or clinic where his employees render service to patients in the hospital or clinic either in their treatment or otherwise. In these cases there is an entirely different status present. We do not have the same defenses; in fact, we may have no defense if an employee has injured a patient, when, if the same injury had been caused by a doctor in the course of his private practice we might have a perfect defense.

We have prepared a circular in which we believe we have clearly described our intent when issuing this form of insurance. In addition to the advantage of co-operation our effort is to limit the number of cases that might develop.

We will endeavor to describe the methods we use in developing this idea of co-operation in the conduct of these cases. Whenever a claim is made upon a doctor insured under one of our policies, or even when a claim is threatened, we want our assured to report it, thus giving us the earliest opportunity to learn the facts.

If our investigation shows the facts to be such as enable us to build up what we believe

will be a proper and successful defense, then we will not call for the arbitration committee provided for by the terms of our policy at all.

If we find, as we sometimes do, that our assured has been placed in such a position that he is unable to produce the proper evidence, and we feel that we are unable to handle the case properly without assistance, then we ask that such committee be appointed.

The selection of the committee must be dependent upon those who are the best advisers in the particular case. They must necessarily be men who are friendly to the defendant. The appointment of an indifferent or antagonistic man to the committee would be inexcusable.

If the committee and our counsel can find a way to successfully defend the case, there is no reason for asking their consent to settle.

If they cannot find such a way, then there is no reason why such consent should not be given.

We frankly state that we need the best thought of the best minds in the profession to assist us in properly defending some of these cases.

We regard the term "co-operation" as simply describing a means for accomplishing a desired result; it may be made to mean a great deal or practically nothing, wholly depending upon the spirit in which these affairs are viewed. You may feel certain you will always find us trying to make it mean the most.

In order to give you a proper understanding of the fact that the conditions surrounding the practice of your profession are constantly getting worse instead of better from the standpoint of malpractice suits, we believe it would be well to mention a few of our experiences in the handling of these cases. It is true that these cases were not tried in Virginia but the conditions throughout the country and the attitude of the courts toward these cases is rapidly approaching uniform practice. The first two cases that I refer to occurred in the State of Maine in which prior to the handing down of these decisions by the Supreme Court, that august body had, and exercised, the privilege of reviewing the evidence and also considering the credibility of the witnesses and the weight of the evidence.

In most States the Supreme Court only

passes upon question of law; therefore, we were very much surprised when these decisions were handed down to find that the Court had refused to consider either the weight of the evidence or the credibility of the witnesses, but had practically disregarded the entire theory upon which both of these cases were defended.

The Appellate Courts in other States in their recent decisions seem to have adopted the attitude of regarding malpractice suits in the same light as any other personal injury action for they no longer seem to be inclined to give the doctor against whom the suit is brought the benefit of any doubt.

Heretofore questions of proper practice have been decided upon the basis of the usual practice such as would be followed by a man of ordinary qualifications practicing in the same or a similar community.

Quite recently the Minnesota Supreme Court where there has been quite a number of these cases decided, extended the definition of proper practice and inserted this qualifying clause in one of their decisions.

"With due regard to the present advanced state of medical and surgical science—"

Undoubtedly this amendment will be accepted by the Courts of the other States and its effect will be very far-reaching toward increasing the obligation of the doctor or dentist to his patient.

In view of the attitude of our higher Courts in these cases, as well as in other cases, we are confident that there must be an extraordinary effort put forth by the members of the professions, as well as themselves, if we are to hope to avoid a condition developing such as will place the profession substantially in the position of guaranteeing a favorable result whenever they undertake to treat a case and in the event of there being an unforeseen result which leaves the patient in a damaged condition, unless the physician or surgeon can show in the trial of the case that he had used every known precaution to avoid such a result.

Such a responsibility of the professions could, of course, be well met by the purchase of insurance, but whenever such propositions confront the profession it will be necessary for the insurance Companies to increase the rates that they charge for such insurance

proportionately. We have heard it argued by some of the men in charge of the conducting of this business of some of our competitors that it is to the advantage of the insurance company to simply administer their business in accordance with the conditions they find and make no effort to assist their policyholders in making these conditions better or attempting to hold them as they are. We presume that this view is adopted on the theory that an insurance company is simply a medium through which the average loss that arises may be distributed over the total number affected or liable to such loss. Therefore, the insurance company should simply increase its rates proportionately. We, however, have never accepted this theory. We feel that when we accept a premium from our assured, they are entitled to our best services toward protecting their interests in the future.

We consider that our assured are placing us in the position of being their attorneys-in-fact so far as the handling of such a case is concerned, we guaranteeing the efficiency of our acts up to the limits of insurance purchased.

A review of our experience in the handling of the cases that have arisen under our Group Form policies causes us to believe that we will be able to offset to a great extent the natural trend of events as referred to above. In fact, we have handled and disposed of approximately sixty suits in the course of the last three and one-half years and up to the present only had one case in which the verdict for the plaintiff was affirmed by a Supreme Court, but we have one other case now on appeal in which we expect that the verdict will be affirmed.

If you will grant me the additional time I will be very glad to place before you a brief statement of the salient points of the case in which the judgment was affirmed for the plaintiff; also a brief statement of our experience in the second case that we expect will be decided against us, and we can also give you a brief statement in two cases in which our ideas regarding co-operation were successful in securing a verdict in favor of our assured.

First. In Maine a suit was brought against one of the most prominent orthopedic surgeons in the State, who also had a reputa-

tion outside of his own State as a successful general surgeon. He has been practicing for years in a large hospital, and has had a vast experience in the most serious class of casualty surgery, on account of the fact that the hospital is practically a clearing-house for a large area of the country in which a dangerous class of industrial operations is conducted, and the cases that are brought to the general hospital have, in many instances gotten into horrible shape, on account of the delays incident to the transportation of the injured.

The patient in this case visited the doctor for the purpose of seeking relief for excruciating pain in both lower limbs, such as prevented him from working or sleeping. He had suffered from this condition for years, and had been disabled from following his ordinary avocation as a farmer. The condition from which he had suffered had caused an almost complete ankylosis of both ankle joints, only about twenty per cent of flexion remaining. He had been treated by local physicians, he had sought the advice of specialists, and he freely admitted that he intended to commit suicide if he could not be relieved of the pain that he was suffering from.

Our assured advised the man that he thought it would be worth while to try the effect of the severing of the nerve of sensation on the outside of each leg, that his loss of movement in his ankles was much greater than that which would be caused by any loss of muscular function that would be caused by the separating of the nerve, and the patient accepted the suggestion and made arrangements for the operation to be performed. There was some delay in the assured being able to visit the home of the patient where the operation was to be performed and in the interim our assured received two or three letters from the patient stating that if he could not come and perform the operation immediately, the patient was going to commit suicide, because he had gotten beyond his ability to stand the pain.

The operation was performed, and the musculo-cutaneous nerve in the right leg was cut at a point about six inches below the knee, the trunk of the nerve being found in its usual position. The wound healed with no complications, and the result was entirely sat-

isfactory,—at least there was no complaint made by the patient as to the continuation of the pain previously suffered in this leg, and the patient was under observation for several days, and exhibited no objective symptoms of suffering any pain. An incision at the same point in the left leg was made, but the nerve was not found in its usual position; only a filament was found nearby, which was cut, and after a further search what was believed to be the balance of the musculo-cutaneous was found, closely adjoining the first filament. This was cut. At no time was the incision of the section carried deep enough to have exposed the anterior tibialis if it had been in its usual position. The wounds in this leg healed by first intention, but the patient complained of his inability to move his foot, even in the limited manner that he had previously been able to use it, and the lack of motion indicated that the anterior tibialis had been cut.

The patient's brother-in-law was a practicing physician connected with a hospital in which the Staff was reputed to be very jealous of the Staff and the hospital with which the surgeon who performed the operation was connected. The patient was taken to the second hospital, and operated upon by the general surgeon, who laid open the leg with both longitudinal and lateral incisions, in his endeavor to find the severed ends of the nerve and to approximate these ends in a effort to re-establish functions, and presumably to re-establish the pain previously suffered, which had been relieved to some extent.

The first surgeon was sued for damages, and in the trial of the suit the second surgeon testified that there was no authority for cutting a nerve for "*neuritis*", although he refused to say that the patient had ever been suffering from neuritis, and no evidence to this effect was introduced.

The witness testified that he was told that there was no question but that the operation would be successful, he would be entirely relieved of his pain, and the disability that he previously suffered would be immediately relieved as a result of the operation, and the first surgeon who performed the operation, had no evidence other than his word, that the statements of the patient were not so.

The witnesses for the first surgeon were the leaders of the profession in the State, and

they unqualifiedly stated that the operation was properly performed and that the result was unavoidable, in view of the malformation present at the point where the nerve was usually found, and that even though two split nerves were found at the point, that it was entirely proper to cut both nerves, so long as the attempt was being made to eliminate the pain in the area supplied by the nerve which is usually found at that point in the leg.

The case was tried to the best advantage possible, and yet the jury believed the plaintiff and the quibbling surgeon who testified that it was improper to cut a nerve for "*neuritis*", and rendered a verdict in favor of the plaintiff. This was appealed to the Supreme Court, and recently they handed down a decision substantially to the effect that the jury was permitted to pass upon all questions of fact, even though the law in that State permits a review of the evidence by the Supreme Court, even to the extent of considering the credibility of the witnesses. The Supreme Court affirmed the jury verdict, and about \$6,000 was paid for judgment and interest.

This experience convinces us that every surgeon should protect himself by converting his statements made to a patient to writing, and compelling the patient to sign them, if he wants to be sure that he will not be confronted with a damage suit, in which some doctor will be found who will be willing to quibble for the benefit of the claimant.

Second. This is another case that will illustrate another angle that confronts the ordinary physician. A doctor who had been attending a certain family in the Middle West for years, and was not only the family physician, but socially a friend and a frequent visitor, was called to attend a seven year old boy, who had fractured his elbow, or both bones of the forearm near the elbow, when he fell out of a fruit tree. The doctor swears that he used the utmost precautions in reducing the fracture, that he applied splints at four o'clock in the afternoon, and before ten o'clock the same night removed the bandage and assured himself that the splints and bandages were properly applied, and were not causing excessive pressure; that in the course of the next four days he removed the bandages and splints, and inspected the arm at least three times. The mother of the boy, at the trial of

the case, and the family servant, testified that the doctor never removed the splints or inspected the arm until ten days elapsed, even though the boy was constantly complaining of pain, and constantly suffering, and the hand remained swollen and discolored.

Between the time that the boy was attended and the time that the suit was brought, a quarrel had occurred between the families.

The boy has a partial paralysis of the extensor muscles of the forearm. In the suit it is alleged that he is suffering from Volkman's contracture. At the first trial of this case, the jury disagreed, standing three for the plaintiff and nine for the defendant, and at the second trial, the jury disagreed again, standing six for the plaintiff and six for the defendant. The men who insisted upon holding for the defendant stated that they did not believe the testimony of the mother and the servant, because they exhibited so much feeling and animosity against the doctor that they preferred to believe his statements rather than the womens' statements.

The case was tried the third time, and whether the women modified their testimony and exhibited less vindictiveness or not, the jury brought in a verdict of \$5,000.00 against the doctor. The case was carried to the Court of Appeals, and has just been affirmed on the ground that the jury must pass upon all questions of fact.

The best possible defense was presented; it was shown that the boy is not suffering from Volkman's contracture, the presence of the muscular fibre was demonstrated to the jury; in fact the best attorney in the entire State was specially selected, the case was given the closest attention and preparation, but in spite of everything that can be done, we believe that the Supreme Court will finally affirm the verdict. We might state that practically every doctor that testified was in favor of the defendant, particularly from the standpoint of the disability that was present in this boy's arm which was the result of the injury to the nerves and muscles that occurred at the time of the accident and had nothing to do with the splints even though there had been pressure on account of the swelling and tightness of the splints.

This case is one that illustrates the dangers confronting the doctor in ordinary prac-

tice, and to our mind also demonstrates that a doctor is never safe from having suits such as this brought against him, and also the necessity of his constantly bearing the possibility of such occurrences in mind, and arranging to guard himself against similar happenings by having some with him when his important acts in every case are performed.

We might state that we believe the doctor is telling the truth in this case, and we cannot conceive of any man taking the position that he takes in the case, and sticking to it, if it was not a fact.

The last two cases are the only ones in which our assured have had verdicts rendered against them, and affirmed by the higher Courts.

Third. A case in Maine, in which a gas bacillus gangrene started through an opening in the skin, caused by the breaking of a bleb, or water blister, that formed at the base of the second toe after a plaster cast was applied as a splint in the treatment of a simple fracture of the tibia and fibula at the junction of the middle and lower third.

The first doctor called to attend the case, insured in another company, requested our assured to assist him in applying the plaster cast. The case was cared for at the man's own home. The fracture occurred when the man, who was drunk at the time, slipped on an icy sidewalk and sat down on his leg. There was no displacement of the fragments, nor laceration of tissue; in fact, the leg at the site of the fracture was not even discolored. Our assured applied the cast over a proper amount of cotton wadding, generally used in such cases, and again visited the patient with the attending doctor, split the cast, and found it necessary to add additional padding underneath the point of the fracture to prevent a bowing backward of the tibia at that point, and closed the cast with adhesive straps. Twelve days later, he was called by the attending physician, and found the leg macerated up to a point three inches below the knee. The patient, upon his order, was conveyed to a general hospital where, in less than twelve hours following his first observing the infection, the necrosis had extended to three inches above the knee in front and to above the middle of the thigh upon the posterior surface.

The leg was then amputated through the femur at about the center of the middle third, and the stump healed by first intention.

The examination of the leg made at the general hospital prior to the operation and after it had been removed, showed without question that this was a case of gas bacillus gangrene.

The attorney who brought the suit based his claim against our assured upon the contention that he was the consultant in the case, and was therefore responsible for its outcome. We devoted our energies to defending the action in such a manner as would show that our assured was not guilty of negligence, and at the same time offered suggestions to the interests that defended the other doctor in the case, that we still believe, if followed, would have resulted in a verdict in his favor. As a result of the jury trial we obtained a verdict of not guilty rendered for our assured, but the jury rendered a verdict in favor of the plaintiff against the other doctor for eight thousand and one hundred and forty odd dollars. This was appealed to the Supreme Court, and recently the final decision in the case was handed down, affirming the verdict, of which \$5,000 and the interest thereon, was paid by the insuring company, and the balance was paid by the doctor.

We are quite sure that the other insurance company and their attorney were quite certain of having the verdict reversed by the Supreme Court, but they were unable to secure this result, even though in the trial of the case it was shown that the man was being cared for in his own home, and the directions of the attending doctor were disobeyed, so far as the providing of clean bedding and the furnishing of the most ordinary cleanliness was concerned.

The effect of this Supreme Court decision in that State we consider to be very far-reaching and that it will impose a special burden upon the doctor who attends the ordinary case among the poorer class of people, in that the Supreme Court substantially says, when it approves this verdict, that a doctor assumes the responsibility for the conditions under which he is treating his patient, should any unforeseen or unusual condition arise by reason of the conditions which the doctor is

in a position to appreciate, and even though his directions for the providing of better surroundings are disregarded, there is still a responsibility resting upon him for the proper care of the patient.

This holding by the Supreme Court in that State, where up to the present time they have previously been almost unanimously holding in favor of the physician, indicates to our mind that the doctor must expect to have the rights heretofore accorded him by the decisions of the higher Courts invaded from the various standpoints or angles that will develop in these cases.

It is on this account that we consider it necessary for co-operation, and special attention should be given to this question of malpractice, not only by us as the insurers of the doctor, but also by the doctor, and we should build up a better appreciation among the members of the medical profession of the hazards sometimes involved in the care of what might be regarded as a simple case; and we must impress upon the doctors that the service of our Claim Department and our attorneys are always available to them whenever in their attendance of a case there is any question as to how the case should be handled in order for them to render themselves immune from successful prosecutions for malpractice damages.

Fourth. I will now describe our experience in another kind of a case, where the result demonstrated that there is still a hope of securing justice from a jury.

The man against whom the case was brought was one of the leading surgeons in the city of Boston, serving on the Staff of one of the principal hospitals. A patient was assigned to his service, suffering from an abscess of the jaw, following an infected tooth. In the course of the treatment of the patient, it was necessary to bring the abscess to a point by using hot applications on the outside of the face, and the abscess was opened, but failed to heal, and it was later necessary to perform several operations for the purpose of removing the dead bone. This was all done and the woman finally recovered with a badly scarred neck and face.

The plaintiff's attorneys succeeding in interesting some of the most prominent oral

surgeons in Boston in this case, and secured their services as expert witnesses. On behalf of our assured, we finally succeeded in securing the services of several of the most prominent general surgeons in Boston as witnesses.

The trial of the case developed into a fight between the general surgeons and the oral surgeons, and occupied nine days in Court, with the final result that the jury rendered a verdict in favor of the defendant, wholly exonerating him.

We consider that our attorney who conducted this fight and secured this result was deserving of the thanks of the entire medical profession, and we certainly fully appreciate the result that he secured, but, as an incident of this kind of a fight, we might state that the trial of this case has cost us something over \$2,000.00, even though our expert witnesses refused to accept the fees that they would ordinarily charge for their services; in fact, one of the most prominent men who, when first approached, stated that he would not go into Court for anybody, finally spent the whole nine days that the trial consumed, at Court as an adviser to our counsel, and when we got through, he rendered us a bill for \$25 covering his lunches and taxicab service.

The result of this trial will, of course never appear in the reported cases, but we consider that the demonstration of the efficiency of our attorney, and incidentally, Etna service has had and will have a profound effect upon attorneys who would otherwise seek these cases as a means of securing easy money through the doctors who are often anxious to avoid notoriety and willing to permit the insurance company to settle cases such as this, without trying to fight them out and defeat the plaintiff.

Practical Points in Current Medicine

General Surgery

Hirschprung's Disease—With Report Of A Case.

Before reporting this case, I will give a brief synopsis of the condition as described by some of the authorities.

Barker appears to give the most comprehen-

sive definition, viz.: "A persistent, high grade dilatation of the colon, with thickening of all the tunics of the wall, especially the tunica muscularis, with retention of large quantities of fecal matter. He states, further, that the etiology is not understood, and attributes the *congenital* type to a defect producing abnormal development of the colon. This type is met in young boys.

The *acquired type* results from kinking of an abnormally long sigmoid, which when filled with feces, sinks into the pelvis. The cases of megasigmoid are always in danger of ileus if the kinking is complete.

When the patient has reached adult life the colon may become enormous. Formad reports an adult with a colon, the contents of which weighed 47 pounds.

Clinically, the enlargement affects the upper abdomen so that the lower aperture of the thorax is widened and the umbilico-xiphoid measurement is increased. As the patient emaciates the outline of the colon becomes visible through the abdominal wall. The patients are constipated. As the distention increases, attacks of pain occur, and are relieved only by diarrhea or artificial emptying of the colon. There is always a more or less co-existing toxemia, manifested by irregular heart action, low blood pressure and frequent attacks of headache, which last for several days or weeks at a time. Periodic nausea, anorexia and vomiting, mental depression, neurasthenia, and even melancholia often are included in the symptom group.

Nissle and Satterlee ascribe to the colon bacillus the predominating factor in the causation of this intestinal toxemia, which occurs in both megacolon and intestinal stasis. They claim that putrefactive organisms produce toxic effects, but the lasting effects are due to the colon bacillus. They recommend in the study of all long-standing toxemias autogenous colon vaccines prepared in proper doses. These act by immunization and sensitization of the body cells. The colon bacillus has its habitat in the large bowel where it plays a part in digestion, and it elaborates material which exerts a marked inhibitory effect on the putrefactive organisms, principally the bacillus putrificus coli, in this way preventing intoxication. Carbohydrate oxidation and fat decomposition, fermentation, not putridity, are caused by the bacillus coli action. Under normal conditions it lives a saprophytic existence and is not only harm-

less, but beneficial to the host. When the colon is diseased, the colon bacillus is distinctly harmful, either in the walls of the colon or when lodged in other parts of the body, as the peritoneum, genito-urinary, or respiratory tracts. It is then capable of becoming pyogenic, and its intracellular toxin is set free and can act in the body of its host.

The case which I wish to report is Miss M. L., age 55, single, admitted to Memorial Hospital April 3rd, 1917, discharged May 23rd, 1917. Diagnosis Hirschsprung's.

History.—*C.C.*—Abdominal distention, repeated attacks of indigestion and chronic constipation. Abdominal pain severe at times. Tenderness over entire abdomen.

F. H.—Mother died of heart trouble three years ago. Father died of kidney trouble twenty years ago. One brother living and in good health.

P. H.—Usual diseases of childhood, pneumonia. An exploratory operation was performed in 1912 for a mass in the region of the pylorus. This was found to be a wandering kidney, which had become attached. This was dissected loose and attached in its normal position by Edibold's operation. The appendix was removed at this time. In 1915 she was operated on again for intestinal stasis, ileosigmoidostomy having been performed. It was noticed at this time that the colon was enormously dilated but the condition of the patient did not justify its resection.

P. I.—Began many years ago, probably at the age of seventeen, with frequent attacks of indigestion and distention. There has been obstinate stasis since childhood and she resorted to laxatives and enemas as a routine practice. There has always been emaciation and weakness, nervousness and she sleeps poorly. Weight has steadily decreased, beginning three months after the last operation. There were no urinary symptoms.

Lungs normal, heart action rapid, blood pressure 108. Physical examination shows emaciated individual with marked abdominal distention and tenderness over the entire abdomen.

Urine contains trace of albumin, few ammonium crystals and occasional hyalin cast. Indican abundant. Blood shows leucocytes 13,400, polys 78 per cent., lymphocytes 8 per cent., large mononuclears 14 per cent., r. b. c. 5,056,000. Hemoglobin 55 per cent. Wassermann reaction negative.

Operation was postponed for ten days after

admission, because of an acute cold contracted on the night of her admission to the hospital.

Satterlee's method of preparation of vaccines to combat these toxemias is almost identical with that of Turck: "Isolate cultures of bacillus coli from the feces, urine and stomach content. Sow these combined cultures over agar which has previously been covered with a film of the patient's blood serum. In forty-eight hours kill the culture with tricresol. The culture is then sensitized with the patient's serum, diluted and given in 100,000,000 doses and up. It is claimed that this makes a most perfect vaccine, and one with a most potent effect."

In addition to vaccines, Mosher advocates a routine treatment. Feeding by the clock, restricted meats and large quantities of water between meals, and little medicine, if any. Mineral oil should be taken without stint as it is neither medicine nor food. Graduated exercises aid digestion, prevent constipation and strengthen the abdominal wall. Stroke abdomen, colon, exercise diaphragm and recti muscles; insert tube if gas is present.

If bands or kinks exist surgical treatment is indicated. Rehfuess states that, unhappily, as a profession, we are still in the twilight stage of operative treatment for these conditions. That only about 10 per cent. of these cases are due to kinks, bands and veils, and here the X-ray is most valuable. Lane, Bainbridge, Bloodgood and others are lighting the path, but their work, though brilliant, only makes clear the difficulties to be encountered, and a need for the skill that comes only through familiarity with the complex conditions so commonly found, and a knowledge of the best methods of dealing surgically with each.

Liberation of adhesions and kinks and fixation of the excessive mobility has been followed with fair results when the pathology of the colon has not been extensive.

Ileosigmoidostomy, as advocated by Lane, has met with poor success and is condemned by a majority of the leading investigators. My own case certainly bears this out. Magnon claims that obviously there is no use in operating on a colon to rest it by a short-circuiting operation when the entire wall has been damaged beyond recovery. I am, therefore, convinced that radical excision of the colon is the only means by which we can even hope to improve these cases. I believe, further, that an operation of such severity should not be at-

tempted unless the surgeon is convinced that the patient is hopelessly incapacitated. There are undoubtedly many cases where there is a mild degree of megacolon which can be treated by diet, rest and vaccines, and by proper exercise and support their symptoms may be arrested. If they steadily progress, regardless of treatment, I believe surgical intervention is justifiable.

Another case, Miss M. V. L., age 54, white, has a negative family history. Has suffered from digestive disorders and constipation since childhood. She used gastric lavage for 5 years, after which colonic irrigations were resorted to as a routine.

Appendectomy and suspension of floating kidney performed in 1912 by another surgeon. Her health improved slightly for three years, but by the end of 1915 her symptoms were so distressing that she begged for surgical relief.

Roentgen-Ray examination by Dr. A. L. Gray, revealed the true pathology. There was an enormously distended colon beginning at the caecum and extending half way down the descending segment. At this time she was profoundly toxic and suffering from intense and continuous headache. She had albuminuria, low pulse tension, and rapid heart. I feared she would not survive a radical operation and therefore performed Lane's lateral anastomosis, joining the ileum, six inches from the ileocecal valve, to sigmoid. There was a satisfactory convalescence and improvement for six months. The constipation was completely relieved but the headache remained as before. By April, 1917, her condition was such that she was bed-ridden and showed a pitiful picture, with constant headache, nausea, anorexia, abdominal distention, tenderness and pain, low pulse pressure and rapid heart. Her skin was cyanotic. Her kidneys functioned well, Haemoglobin 40; Wassermann negative. Resection of colon was performed April 27, 1917. The previous anastomosis was satisfactory; therefore, the loop of colon was clamped and cut with canterly as close to the anastomosis as possible. The cut ends were closed with purse-string sutures. The mesentery was clamped with multiple clamps and the colon cut away. After completing the ligation and removal of clamps, the abdomen was closed without drainage. Convalescence was slow, but by the end of a month she left the hospital improved. Since her operation she has gain 22 pounds, eats a general diet and is able to walk twenty city blocks without

undue fatigue. She has an occasional headache, but rarely is bothered with abdominal distention. She appears to be improving steadily each month.

STUART MICHAUX.

Obstetrics

A Physician Should Be Employed In every Obstetrical Case.

In writing such a short paper it is not the desire of the writer to go into minute details but to bring to the surface a few of the essential points of this ever important subject. Nothing original is claimed and the following lines are known to all physicians and are here brought forth as being our special duty to emphasize its importance to the general public.

A comparison of the average woman of to-day and those of olden times is quite marked. The modes of living and the methods in the practice of obstetrics of primitive races and at present are quite different.

Civilization with its artificial dress and customs has rendered woman more of a hot-house product and physically less fit to perpetuate the race. As the nervous organization loses in the power of resistance as the results of higher civilization and artificial refinement, it becomes imperatively necessary for the physician to guard her from the dangers of excessive and too prolonged suffering. The amateur method of delivering a patient under cover and with no previous hygienic instructions is no more. A very important question arises: Is labor in the woman of to-day a normal function? It should be, but, unfortunately, it is not. It is estimated that about 8000 women annually die in childbirth. Mauriceau called pregnancy a disease of nine month's duration. In the opinion of the writer this should not be called a disease but rather a condition with a physiological border-line.

While obstetrics is the most difficult and hardest of medical practice, it at the same time is the most satisfying. No where can the physician accomplish so much, both in the prevention of disease and accidents as in this line of work. He very often has the positive belief that without him either mother or child, or both, would have passed away. Thousands of women enter the hospitals each year for the repair of injuries caused by child-birth; nearly one-third of the blind people in this world

have lost their eye-sight because of the ignorance or carelessness of the attendants at the time of birth. The causes of these evils should be removed, and at this point it may be well to state that all physicians should strive to abolish meddlesome mid-wifery. With the simple application of Crede's prophylactic silver nitrate method in the eyes of the new born, a great reduction in blindness has been noticed. This particular thing alone has added greater joy to the sacred field of Motherhood.

With the erection of modern maternity hospitals, modern technique of obstetric diagnosis, the use of anesthetics, the scientific administration of pituitrin, scientific application of forceps, the practice of obstetrics is being robbed of most of its objectionable features, and with the public there is a great tendency towards the employment of an obstetric specialist. The great subject of the hygiene of pregnancy with all its phases has accomplished wonderful results for the expectant mother. Besides examining the urine and looking after the patient generally, a routine examination of heart and lungs together with pelvic mensuration should always be made. A physician who practices obstetrics without pelvimetry and abdominal palpation must be regarded as no better than one who treats diseases of the heart and lungs without the aid of auscultation and percussion.

No woman has the moral right to subject herself at the trying time of child-birth to the unnecessary risk of sickness, accident, or even of death to herself or child, by employing, when she can possibly avoid it, anyone except a physician trained by study and practice in the modern methods of prevention and treatment.

This is one time when economy should not be the first consideration. It should be well remembered that there are two patients to be dealt with and not one. The mother of to-day should know that she should have a physician; that she should take no chances; that she should protect herself and baby. The antenatal hygiene is extremely important. We can only reach the unborn infant through the mother who carries it, and so this stage of motherhood—between the life of child and woman—are closely bound together and depend one upon the other.

It is not until the pathologic dignity of ob-

stetrics is fully recognized, that we may hope for any considerable reduction of the mortality and morbidity of child-birth. It is, then, the very important duty of all physicians to spread this information to the laity whenever opportunity presents itself. Thus, it may be done quite satisfactorily in the various leagues, Nurse's associations and Mother's clubs, and, further, by literature furnished by the State Board of Health. In this effort a movement should be strongly made by which we can place this branch of medicine upon a more scientific basis.

JOSEPH BEAR.

Internal Medicine

Exercise In Diabetes.

The carbohydrate tolerance is materially increased by judicious exercise. This fact has been recognized in cases of mild diabetes for some years, while in the severe type, exercise has been thought to lower the tolerance. In the severe form coma has been induced by the injudicious or unwise exertion of the muscular mechanism of the "diabetic body." For this serious reason, the use of exercise in assisting the carbohydrate mechanism has been allowed by practitioners to fall into disuse. In the light, however, of the modern therapy of dietetic management of diabetes, exercise has taken rightfully a more constant association in all types of cases, early or advanced, mild or severe. However, its application must be judiciously made. The third great function of carbohydrate oxydation in the body is carried out by the exercise of the body-muscle, namely, acting as a protein sparer in order that protein food may serve its chief function of building up protoplasmic tissue. Exercise not only does this, but also affords the patient diversion, increases his well-being, promotes elimination, and assists in gastric and enteric digestive processes.

Within a short time after a carbohydrate intake, exercise should be commenced but should not be continued beyond the point of a sense of muscular fatigue, and never to the degree of weariness or exhaustion. In the adult this agent will assist in regaining vigor or muscle tone, while, in the child, it will aid in body growth. In order to establish it as a direct therapeutic agent, it is necessary to use it with accuracy and exactness. If the exercise is conducted without system or direction, it soon may

lose its usefulness and become injurious. Allen's experiment, with diabetic dogs, having definite carbohydrate tolerance showed a material increase, after exercise in a treadmill. The urine and blood sugar readings both showed increased tolerance for carbohydrate.

There is a point, no doubt, in the amount of body-work performed by the diabetic, at which benefit is gotten, while beyond that point harm is produced. Then, is there not an exercise tolerance for each diabetic which should be sought for by the clinician? It seems to me the criterion of amount of exercise the diabetic properly requires is the sense of muscular fatigue. This sense of fatigue must be understood by the patient. It is the threshold of this phenomenon of muscle fatigue that the patient must be taught to know. Each patient may, within certain reasonable limits, have an individual tolerance before advanced fatigue is felt. This tolerance increases as the diabetic improves. The diabetic is within his proper amount of exercise, speaking broadly, when he feels better one hour after the exercise is completed than he did before it was commenced.

In a squad of six severe diabetics, recently under my treatment, exercise was cautiously used to advantage. In each case, during fasting period, they were put to bed, either in hospital or at home, under nurse-care, and no exercise was permitted. During the period of fasting and testing for tolerance of carbohydrate, these patients were restricted in amount of exercise. This period covered usually four weeks. After the tolerance point of carbohydrate was determined, exercises were given more consideration and the patients instructed in the system of rest and exercise. Particular attention was given to educating these patients in understanding the sense of fatigue and to observe the sense of muscle tone or bodily vigor in the period of rest following completion of the exercise. At first it is well to have the patients take a course of short exercises indoors. These exercises should consist of a series of contractions of antagonistic movements. Slowly and systematically, in reclining or sitting posture, the patient is instructed to practice movements by which muscles of fore-arms and arms, legs and thighs and the trunk may be put through a series of contractions which are resisted either by antagonistic muscles of the patient, by weights, or by attendant. The classical Schott exercises may be easily practiced by the patient and an attendant. After

this, more general movements of the body may be used, and it is in this form that with well-doing patients prescriptions of walking or more or less weight exercise are given. A satisfactory formula for mild gymnastic exercise may be here described; with eight movements of each of the following exercises* the muscles of the body receive regular practice:

1. Open and shut fists forcibly.
2. With arms to side, flex and extend hands.
3. With arms to side, flex and extend fore-arms.
4. With arms to side, pronate and supinate arms.
5. With arms horizontal, bring to front of face and back to shoulder.
6. With arms horizontal, hug self.
7. With arms horizontally extended, make wide circle in air.
8. With arms to side, bend trunk forward and backward.
9. Make slow circular movements with trunk.
10. Rise up on toe and heel.
11. Make semi-squat.
12. Make complete squat.
13. Make circular movements with each leg.
14. Do a stationary run.
15. Walk a short distance.

ALEXANDER G. BROWN, JR.

*See Diseases of the Heart and Aorta (Hirschfelder).

Editorial.

All Doctors To Be Classified In The Country's Service.

The time has come when doctors are to be placed in one of two classes, or else be considered as unpatriotic, with the stigma of slacker, and as being unwilling to serve our country in any capacity in its time of need. The two courses open are to volunteer for service (1) in the Medical Reserve Corps of the Army or Naval Reserve Force, or (2) in the Volunteer Medical Service Corps if not eligible for service in the Army or Navy because of age, physical disability, essential community or institutional need, or dependents. It is planned that members of the second class—that is, those who are not eligible for active service in the first class—shall wear an insignia of office to be determined upon later, for they will be as truly serving the country as those who go over-seas. They will be under

pledge during the present emergency "to accept service, military or civilian, wherever, whenever and for whatever duty they may be called by the central governing board."

There are approximately 23,000 doctors in the army and navy, or about one-fourth of those in active service in this country. Nearly 50,000 will be required eventually for the army. To raise the required number, some sacrifice will have to be made. As there are relatively few doctors, however, who will be willing to be classified as slackers, thus placing themselves in the undesirable third class, we are sure the government will experience no trouble in securing the full number of medical men required.

The census of the medical profession of the country here referred to has been ordered by the War Department through the medium of the state and county committees of the Council of National Defense.

Called Meeting Of Executive Council, Medical Society Of Virginia.

A called meeting of the Executive Council of the Medical Society of Virginia was held May 30th, 1918, with the following members present: Drs. E. G. Williams, H. H. McGuire, R. E. Whitehead, P. A. Irving, M. M. Pearson, A. L. Gray, Charles H. Davidson and A. G. Brown.

Committee on program for the State Society meeting reported through Dr. H. H. McGuire, as follows:

Subject for general discussion—

(1) Surgical Conditions in the Great War, by Dr. Robert C. Bryan, Richmond.

(2) Medical Diseases in the Great War, by Dr. S. P. Oast, Portsmouth.

(3) Grounds for Exemption from Military Service, by Dr. C. R. Grandy, Norfolk.

It was moved and adopted (1) that the Secretary-Treasurer be directed to send a letter to the Treasurers of County Societies instructing them that he will proceed to collect State Society dues from members of County Societies unless objection is made; (2) that the Secretary-Treasurer of the State Society is authorized to take this action to meet a war emergency.

Adjourned.

A. L. GRAY,
Chairman.

ALEX. G. BROWN,
Clerk.

Augusta County (Va.) Medical Association.

At the regular meeting of this Association, August 7, Dr. Robert C. Bryan, of Richmond, addressed the members. Following the address at a smoker and luncheon, practically every member of the Association volunteered his services for war work, either at the front or at home.

This being the annual meeting, the election of officers was held with the following results: President, Dr. Kenneth Bradford, Staunton; vice-president, Drs. W. F. Hartman, Swoope, and Guy R. Fisher, New Hope; treasurer, Dr. C. C. Jones, Staunton; trustee, Dr. M. P. Jones, Churchville, and censor, Dr. Wm. C. Roller, Mint Spring.

Applicants For Enrollment In The Medical Reserve Corps

May be examined at Grace Hospital, this city, every Tuesday and Friday, at 3 P. M. Doctors who contemplate attending the coming meeting of the Medical Society of Virginia in this city, October 22-25, and cannot conveniently get to Richmond or some other board before then, may be examined at that time. All who contemplate enrollment should write in advance for their papers to the President of the Board, Maj. Robert C. Bryan, M. R. C., Grace Hospital, this city, as it will facilitate and expedite the examination.

Need For General Practitioner In Army.

To correct an impression which has arisen in the minds of some that the specialist and not the general practitioner is needed in the army, we quote from the *Journal of the American Medical Association* a statement which we have likewise previously published:—"There is need in the Medical Department for every physician who can qualify physically, morally and professionally. In many departments of the service the general practitioner is a better man for the work than the specialist."

Women Doctors Taking Big Part In War.

Medical women have demonstrated that they can be of great service to their countries in the time of war. In 1914, the British government declined the hospital unit offered by the Scottish women's hospitals, and France gladly accepted it. Their work in France has been pronounced beyond praise. England has since completely reversed her policy and is now

gladly opening her schools to women. Woman's great work in the world war has been found in conservation and reconstruction, though her work has not been confined to this phase. At one of the hospitals in France, staffed entirely by women, during its first two years, 2,527 patients were received, 2,829 operations performed, and only 48 deaths occurred, which was 1.9 per cent. of the persons cared for.

American medical women, efficiently led by Dr. Rosalie Slaughter Morton, of New York, are organizing for work. Some twenty-five well-qualified medical women have been placed by the American Women's Hospitals in hospitals already existing in France. Considerable interest has been taken in the unit presented last winter to the French government and promptly accepted. This unit, headed by Dr. Caroline Finley, of New York City, is complete without a man in its ranks, and is to care principally for the civilian population in France—the women and children who are in such dire need of proper medical attention.

Realizing more and more the need of women to enter the profession to fill the gaps made by the men having joined the army as well as other positions of trust, many of the medical schools of the country are this year opening their doors to women. Among them is the Medical College of Virginia in this city, which will, beginning with the coming session, admit women to its three departments of medicine, dentistry and pharmacy.

Medical Reserve Corps News.

Word was received late in July of the safe arrival overseas of the members of Base Hospital No. 45, including Dr. Stuart McGuire, of this city, and his co-workers.

Capt. William B. Porter, of this city, arrived safely in London about the middle of July. He will do special work in the Lewis-McKenzie heart hospitals for several months before joining Dr. McGuire's hospital unit in France.

Dr. P. E. Tucker, Buckingham, Va., who has been in training at Fort Oglethorpe, Ga., received orders the first of this month to report at Hoboken. Dr. Tucker writes that he is much interested in the work.

Dr. J. O. Fitzgerald, Jr., of the State Health Department, received orders to report the first of this month for a special course of instruction at the Rockefeller Institute, New York.

Capt. Waller Nelson Mercer, of this city, arrived in France about the middle of July.

Dr. Clarence J. D'Alton, a native of Petersburg, Va., but who has been living recently in New York City, is now overseas.

Dr. T. E. Armstrong, South Boston, Va., reported for duty to the commandant of the fifth naval district at Norfolk, about the first of August.

Dr. M. L. Anderson, of this city, has been across long enough to have seen service in the trenches.

Word has been received of the safe arrival overseas of Maj. F. K. T. Warrick, of this city.

Dr. Turner S. Shelton, of this city, has received an appointment in the medical reserve corps of the army, and left recently for duty.

Northampton County (Va.) Medical Society.

The officers of this Society, elected at its last annual meeting are Dr. J. Mortimer Lynch, Cape Charles, president, and Dr. W. C. Trower, Eastville, secretary.

Nurses Still Needed.

Surg. Gen. Gorgas called upon the American Red Cross early this month, to employ every possible means to enroll at least 1000 nurses a week for the next two months. As the armies overseas enter the front-line trenches in greater numbers, the greater will be the need for nurses in the Army Nurse Corps. If you wish to join, do not wait for further invitation, but make application through the local office of the Red Cross.

Red Cross Nurses To Be In Every French Hospital Where U. S. Troops are Treated.

To care for American wounded sent from the French sector to French military hospitals, the American Red Cross has assigned one of its Red Cross nurses and a French and English speaking Red Cross aid to every French hospital caring for our men. Before the nurses were thus assigned, some of our men who had been fighting in French regiments arrived at institutions where no one could speak English. A few of the soldiers, not recognizing the language, thought that they had been captured and were in the hands of the Germans. Doctors and nurses could not understand the patients, who had difficulty in explaining their symptoms and needs. The Red Cross aid will now act as a go-between for the American soldier and American Red Cross nurse on the one hand and the medical staff and French nurses on the other. The

aid also attends to correspondence for the wounded.

Serum To Prevent Wound Infection.

A supply of 120,000 doses of bacilli Welch serum for the cure and prevention of the deadly gaseous gangrene, or malignant gaseous edema, has been ordered by the American Red Cross in this country for shipment to France. The bacilli Welch was discovered by Dr. William H. Welch, of Johns Hopkins University. The disease in question develops within a few hours of the time when the wound is received and, if left to itself, invariably proves fatal.

The Association Of Military Surgeons Of The U. S.

Will hold its 1918 meeting at Camp Greenleaf, Ft. Oglethorpe, Ga., October 13, 14 and 15, under the presidency of Dr. George A. Lung, Medical Director in the U. S. Navy.

Acting Medical Inspector In Richmond.

Upon recommendation of Chief Health Officer, Dr. Roy K. Flannagan, the Administrative Board has appointed Dr. P. M. Chichester as acting medical inspector of this city, to fill the vacancy caused by the death of Dr. Lucien Loftin. Dr. Chichester is a graduate of the University of Virginia and lived at Bethesda, Md., for a while prior to coming to Richmond.

Lynchburg's Medical Honor Roll.

Lynchburg, Va., has twelve doctors in the army or navy service and several others are expected to be commissioned soon. Those who are already in the service are Drs. Walter M. Brunet, John W. Carroll, T. N. Davis, J. Wyatt Davis, A. H. Deekens, George P. Hamner, Bernard H. Kyle, J. J. Ligon, J. W. Devine, S. H. Rosenthal, A. L. Wilson and W. H. Robertson, the last colored.

The American Association of Anesthetists,

At their sixth annual meeting in Chicago, elected Major W. B. Howell, C. A. M. C., Montreal, Canada, president, and Dr. F. H. McMechan, Avon Lake, Ohio, secretary-treasurer.

Dr. and Mrs. C. Mason Smith,

Fredericksburg, Va., have been recent visitors in this city.

State Hospital At Raleigh To Be Improved.

Arrangements have been made and contracts let for great improvements at the State Hos-

pital for Insane, at Raleigh, N. C. Nearly \$100,000 will be expended in improving and enlarging the electric and heating equipment, putting in new and up-to-date boilers, etc.

Flat Foot Rookies Being Treated.

All rookies with flat feet at Camp Devens, Mass., have been brought together for orthopedic treatment. There are two full companies of them and they have been made a part of the First Development Battalion, in which it is proposed to train for service men who have minor physical defects.

Small Percentage Of Soldiers Die Of Wounds Or Disease In Hospitals.

In connection with the casualties among the American Expeditionary Forces in the Marne-Aisne offensive, the War Department authorizes the statement that of wounded soldiers sent to hospitals for treatment, fewer than one in twenty die. Of all soldiers sent to hospitals, only forty-five in every thousand die of disease and wounds. Of all soldiers wounded in action, more than four-fifths return to service, many of them in less than two months. It is necessary to discharge for physical disability only 14.5 per cent. These figures are based on an average of both French and British official figures, including both officers and men, which are averaged together, since American troops are fighting with both French and British troops under conditions which vary.

Dr. William F. Drewry,

Superintendent of the Central State Hospital, Petersburg, Va., has been appointed by Governor Davis to succeed himself for a term of four years as a member of the State Board of Health.

Fighting Epidemic Of Spanish Grippe.

The American Red Cross has appropriated a large sum of money to assist the government of Switzerland in the establishment of hospitals and isolation houses, and to take other relief measures to stay the epidemic of Spanish grippe which has assumed alarming proportions among the Swiss army and civilian population. It is reported that at Fribourg there were 1500 cases from which 12 deaths had resulted, and 1600 cases with 37 deaths were reported from Berne.

Spanish grippe, or influenza, is a disease about which the medical fraternity of this

country have as yet no definite information. The Surgeon General's office of the War Department is awaiting reports from abroad to determine whether it is a new disease or simply the well-known form of influenza which has assumed a particular virulence. American medical authorities have several special cases under inspection at this time, for the purpose of ascertaining the exact organism with which science must contend.

The present manifestation of the disease was first noted in Spain a few months ago, which accounts for the name given the epidemic. Its next appearance was in Germany where it was reported to be very serious, especially among the troops. A great part of Germany's outside commerce is now carried on with Spain, and Switzerland is the neutral country through which the trade has its channel, which accounts for its special prevalence in these three countries.

The Southside Virginia Medical Association,

Of which Dr. P. A. Irving, Farmville, is president, and Dr. R. L. Raiford, Sedley, secretary, is to meet in Emporia, September 10.

Married—

Dr. J. M. Gouldin and Miss Bessie Winston Wright, both of Tappahannock, Va., in this city, August 10.

Capt. Walter Joseph Otis, M. R. C.,

Graduate of the Medical College of Virginia, member of the Medical Society of Virginia and the Richmond Academy of Medicine and Surgery, and formerly of the House Staff of Memorial Hospital, this city, has been promoted to Major and is now attached to the Staff of the Commanding General of the 84th Division as Division Psychiatrist.

Dr. William P. McGuire,

Of Winchester, Va., is spending sometime at the summer home of his daughter in Edgartown, Mass.

Dr. A. M. Willis To Organize Base Hospital Unit.

It is announced that Dr. A. Murat Willis, of this city, is organizing a naval base hospital unit with sixty nurses and ten doctors for service either overseas or in this country. Should Dr. Willis and his staff enter the service, the

Johnston-Willis Sanatorium will remain open under the direction of Dr. Douglas Vander Hoof. The names of the following Richmond doctors have been mentioned in addition to that of Dr. Willis, as members of the staff of the proposed hospital unit—Drs. J. McCaw Tompkins, William H. Higgins, S. C. Bowen, S. W. Budd, H. Norton Mason, C. C. Coleman, and D. D. Talley. Dr. I. W. McDowell, an orthopedic specialist, of Savannah, Ga. is also an applicant for service with the unit.

Coincident with this news comes that from Abingdon to the effect that the entire medical staff of the George Ben Johnston Memorial Hospital at that place has enlisted for service and that the hospital will be closed after September 1.

Tuberculosis A By-Product Of The War.

France is finding in tuberculosis one of the worst of the war's by-products. Before the conflict had continued two years, her hospitals were filled with soldiers suffering from the plague and facilities for the adequate care of them were lacking. The American Red Cross has aided the French government in every way possible to care for tuberculous soldiers and repatriates. A plan similar to the Home Hospital plan in New York City has now been adopted in France, especially for those refugee and repatriate families with tuberculous members.

To meet this situation in our own army, the American Red Cross has made an offer to Army Headquarters, which has been accepted, to provide a hospital near the shipping ports, to care for our soldiers who have developed tuberculosis in the army, prior to their return to America.

President Of Medical Examining Board of Virginia.

Dr. J. E. Warinner, of R. F. D. 4, this city, has been elected president of the Medical Examining Board of Virginia, to succeed Dr. R. S. Martin, deceased.

Dr. J. O. Flynn, Jr.,

Resident director of the State Health Service, tendered his resignation to the State Board, to be effective upon appointment of a successor.

Dr. John E. Cannaday,

Charleston, W. Va., has been on a recent visit to relatives in Floyd and Montgomery Coun-

ties, Virginia. He has received a commission as major and will head a hospital unit from West Virginia for overseas service.

Dr. Emily C. Runyon,

Of this city, who has been in Mississippi for the past five winters, expects to practice her profession in this city again this winter, and will be established at Gresham Court, with offices in the Women's Professional Building, on East Grace Street.

Dr. William R. Gwathmey,

Of Ruark, Va., was a recent visitor in this city.

Dr. J. William Ebert

Has returned to his home in Lutherville, Md., after a visit to his parents in Winchester, Va.

Dr. R. D. Caldwell,

Undergraduate interne at Sheltering Arms Hospital, this city, has been elected to fill the vacancy in the office of the City Health Department, caused by the resignation of Miss McClure, laboratory technician.

Dr. William C. Woodward

Has resigned as health officer of Washington, D. C., to accept a similar position in Boston, Mass.

Progress Made In Combating Venereal Diseases Among Troops.

Measures taken by the American military authorities against the spread of venereal diseases among the soldiers of the Expeditionary Forces have resulted in the lowest annual rate per 1,000 ever recorded for American troops. It is stated that of the newly inducted men, 7 out of every 100 have the disease when brought to the camps. Only about 1 in 100 of those who have the disease upon induction into the navy or army or who contract it later have to be discharged as unfit for military service. Special care is taken to prevent the spread of the disease in the camps. Acute and active cases are segregated. Every soldier is inspected for venereal disease at least twice a month and, if found infected, he is put under treatment, so that he can be rendered non-infectious and returned to duty as soon as possible. As a protection to the civilian community, he is restrained to camp, loses his pay

while disabled, and is also tried by court-martial and punished if he violates the order requiring the taking of treatment.

Dr. G. L. Morriss,

Buckingham, Va., has been appointed medical examiner on the local military board, to succeed Dr. P. E. Tucker, who has joined the medical reserve corps.

Dr. and Mrs. C. S. Webb,

Of Bowling Green, Va., enjoyed a short visit to Orange, Va., last month.

Dr. Allen G. Freeman,

Formerly of this city, and assistant State Health Commissioner of Virginia, but more recently health officer of Columbus, O., has been commissioned a major in the U. S. Army.

Dr. and Mrs. Stephen Watts,

University, Va., have been recent guests at Natural Bridge, Va.

Dr. Joseph M. Burke,

Petersburg, Va., was appointed chairman for Dinwiddie County and Petersburg, to secure data and applications of physicians to enter the medical reserve corps of the army.

To Safeguard The Health Of American Soldiers

On transports going to France, strict medical and sanitary precautions are taken. Before embarking, a thorough examination of troops is made by army medical officers to eliminate the sick and all men are given protective vaccination. After embarkation, all troops must spend *at least* an hour and a half daily on deck, each man bringing his blankets to be aired. During this time, they have to take thirty minutes of physical exercise. All men and their effects must be inspected twice weekly by medical and commanding officers to detect the sick and make sure the men are observing the rules of hygiene. Guards are stationed day and night at drinking fountains and other places to enforce cleanliness. Spitting on deck is forbidden. Every man must take a shower bath daily and change his underclothing at least once during the voyage. The senior naval surgeon is made responsible for the sanitation of the ship and the routine care of all men who are sick enough to require other than first aid treatment. Arrangement

is made for the co-operation of medical officers of the Army aboard and members of the Army hospital and sanitation corps.

Dr. S. W. Budd

Has resigned as laboratory director of the Richmond Health Department, the resignation having become effective August 1.

Dr. Max Schoenbaum

Was appointed instructor of a First Aid class recently organized at Highland Springs, just outside of this city.

Dr. L. S. Early,

Petersburg, Va., went on a trip to Toledo, Ohio, about the middle of July.

Dr. W. F. Draper,

Of the U. S. Public Health Service, who for the past year has been in charge of the public health work in the extra-cantonment zone around Camp Lee, which includes Petersburg, Hopewell and parts of the surrounding counties, has been transferred to Newport News, Va., to assume charge of a similar work around the military camps near that city.

Dr. James D. Fife,

Formerly of Charlottesville, Va., and who graduated from University of Virginia Medical School, in 1897, has been promoted to the rank of colonel in the medical corps of the U. S. Army.

New Appointments At City Home.

Dr. Robert S. Boshier has been appointed to take charge of the tubercular pavilion at City Home, Richmond, to succeed Dr. A. L. Weinstein, resigned, and Dr. S. B. Chaney has been appointed neurologist to succeed Dr. Beverley R. Tucker, also resigned. Dr. Tucker, however, will continue as a consultant in neurology.

Dr. Llewellys F. Barker,

Of Baltimore, joined his family at their summer camp or Georgian Bay, Canada, early this month, for his summer vacation.

Dr. N. G. Wilson,

Of Norfolk, and family, spent some time visiting in Pulaski, Va., in July.

Changes In Georgetown University Medical Faculty.

Dr. I. S. Stone, for twenty-six years pro-

fessor of gynecology in Georgetown University, Washington, D. C., has resigned, and been succeeded by Dr. J. Thomas Kelley.

Drs. James M. Moser and J. A. Foote have been appointed associate professors of pediatrics in the same school.

Acting Assistant Surgeon U. S. P. H. S.

Dr. J. Burton Nowlin

Has been appointed coroner of Lynchburg, Va., to succeed Dr. George P. Hamner, who has entered the Medical Reserve Corps.

Dr. and Mrs. H. Ward Randolph,

Of this city, enjoyed an automobile trip to Northumberland County, Va., in July, and visited relatives in Reedville.

Dr. I. K. Briggs

Returned to his home in South Boston, Va., the latter part of July after a visit to New York and other Northern cities.

Dr. Waller Jameson,

Of Roanoke, Va., has been enjoying a vacation at Crockett Springs, Va., and a fishing trip near White Top, N. C.

Wanted—A doctor of 20 years' experience desires contract practice, or assistantship to elderly physician in town. Address "A.B. C.," care *Virginia Medical Monthly*.

Obituary Record.

Dr. Christopher Tompkins,

One of the leading physicians of this city, died suddenly July 20. Although in infirm health, the end was unexpected, as he had been going about as usual during the day. He was born in this city September 7, 1847, and received his academic education at William and Mary College and the University of Virginia, later studying medicine at the Medical College of Virginia, from which he graduated in 1870. Upon completing his medical education, he served as an interne at Bellevue Hospital, in New York City, after which he returned to this city in 1871, to begin the active practice of his profession. This he continued with distinguished success practically to the time of his death. Late in 1877, he married Miss Bessie McCaw, daughter of the late Dr. J. B. McCaw, of this city. She and six children,

one of them Dr. J. McCaw Tompkins, of this city, survive him.

Dr. Tompkins had held many positions of honor and preminence in the gift of the profession, and was identified with a number of local and national medical organizations, being one of the charter members of the Medical Society of Virginia. He was professor of anatomy at the Medical College of Virginia, and later of obstetrics, and dean of the college for twenty years, until the consolidation of the two Richmond medical schools. The following resolutions, passed by the faculty of the Medical College of Virginia, evidence the esteem in which he was held in this community.

**RESOLUTIONS ON THE DEATH OF DR.
CHRISTOPHER TOMPKINS.**

At a meeting of the faculty of the Medical College of Virginia, held July 22, 1918, the faculty learned with deep regret of the death of Dr. Christopher Tompkins, emeritus professor and former dean of the Medical College of Virginia. The faculty adopted the following resolutions and directed copies to be sent to the daily press, to the *Virginia Medical Monthly* and to the family of Dr. Tompkins.

Whereas, Dr. Christopher Tompkins departed this life on July 20, 1918, after a long and useful medical career in the city of Richmond; and,

Whereas, Dr. Tompkins was professor of anatomy at the Medical College of Virginia from 1880 to 1884, professor of obstetrics from 1884 to 1889, and dean of the college from 1893 to 1913, when the institution was consolidated with the University College of Medicine, all of which positions he filled with distinguished honor; therefore, be it

Resolved, That the faculty of the Medical College of Virginia feel in the death of Dr. Tompkins they have sustained the loss of a valued friend; that the city has lost an esteemed and beloved citizen, and that an honored Virginian of the old school has passed from our midst. Dr. Tompkins was ever ready to serve any who appealed to him and was always noted for his high sense of integrity and justice in all his dealings, whether private or connected with his college or public duties. He bore no malice or hatred in his heart toward his opponents, his friendships were loyal, deep-seated and unselfish, he was beloved and almost idolized by his patients and his private life was filled with the spirit and practice of true Christianity and with affectionate devotion to his family.

Dr. Tompkins gave himself so unsparingly and unselfishly to his college duties and the demands of an enormous general practice that his health was seriously impaired the latter years of his life, but he never lost his interest in the college or in his patients and retained their respect and admiration until the last.

His life stands out as a conspicuous example to all of those who desire to honor the profession of the practice of medicine, all of those who are willing to serve unselfishly their fellow-man, and all of those who count sincerity and integrity as two of the highest human traits of character. Be it, therefore, further

Resolved, That the faculty of the Medical College of Virginia extend to the family of Dr. Tompkins

their deep sympathy in this, their hour of bereavement.

BEVERLEY R. TUCKER, Chairman,
A. MURAT WILLIS,
JOHN BRODNAX.

Dr. Lucien Loften,

Formerly of Emporia, Va., but who had for the past few years made his home in Richmond, died suddenly of apoplexy July 21. Apparently in his usual good health and attending to his duties during the day, he was stricken shortly after retiring, and was dead before medical assistance could reach him. Dr. Loften was a native of Georgia and 48 years of age. He graduated in medicine in 1894 from the Southern Medical College, later the College of Physicians and Surgeons, of Atlanta, Ga. He moved to this State and joined the Medical Society of Virginia in 1898. He was a member and ex-president of the Seaboard Medical Association of Virginia and North Carolina and was for some years a surgeon for the Seaboard and Southern Railways. For about fifteen months he had been medical inspector for the Health Department of this city. He is survived by his wife and two children. The interment was made in Emporia.

Dr. William Phillips Mathews,

Another prominent physician of this city, died suddenly July 25, aged 50 years. He was a son of the late distinguished Dr. Thomas P. Mathews, and was born in Prince Edward County, Va. When about six years of age, his family moved to this city, and he attended the public schools and later Richmond College, from which he graduated in 1888. He then studied medicine at the Medical College of Virginia and obtained his doctor's degree from that school in 1890. After serving as interne at Charity Hospital, New York City, for a year, he returned to Richmond, where he continuously practiced his profession until the night before his death. For a number of years he was connected with the faculty of the Medical College of Virginia, the last chair he held being that of orthopedic surgery, in which work he specialized. He was identified with numerous medical societies, was for one year, 1900-1901, president of the Board of Health of Manchester, was active in Masonic circles, being a past master of Meridian Lodge, No. 284, Free and Accepted Masons, and was prominent and active in church work. He is survived by his wife, one daughter and three sons.

Dr. Chesley Lanier Carter,

One of the best known physicians of Pittsylvania County, died July 11, as the result of Bright's disease. He was forty-one years of age and studied medicine at the University College of Medicine, Richmond, from which he graduated in 1903. Upon graduation, he returned to his native home, Chatham, Va., where he had since practiced.

Dr. Andrew Jefferson Osborne,

Until about a year ago a practicing physician in Lawrenceville, Va., but who since that time had been managing his large farm near there, was shot by a tenant on his place on the night of the 8th and died the following morning. Amputation of the arm near the shoulder was necessary but he died from loss of blood and shock. He was a native of Lawrenceville, and forty-nine years of age. His academic education was received at William and Mary College, after which he entered the Medical College of Virginia, this city, from which he graduated in 1899. He was a member of his local and state medical societies, and was at one time physician to the Brunswick County Almshouse. He was one of the best known men of that section of the State and was popular as a physician. He is survived by his wife, several children and a large family connection.

Dr. Jacob Pinckney Killian,

Salem, Va., died at his home July 5, of cerebral hemorrhage. He was born in Augusta County, Va., in February, 1849, and received his academic education at Roanoke College. After this he studied medicine at the University of the City of New York, from which he graduated in 1870. He was an ex-president of the Salem Board of Health and a member of the Medical Society of Virginia.

Dr. Henry Clay Sommerville,

A retired physician of White Post, Va., died at his home in that place, July 28, from the infirmities of age. He was 84 years of age and a native of Hampshire County, W. Va. He was attending medical college in Philadelphia when the Civil War broke out, and enlisted at once in the Confederate hospital corps. Later he resumed his studies and graduated from the University of Pennsylvania in 1870. After this, he located and practiced in Clarke County, Va. He was twice married and is survived by his wife and four children.

Dr. Walter S. Hoen,

A medical inspector in the United States Navy and formerly of this city, died in Port Au Prince, Haiti, July 10, in his forty-first year. He was a graduate of the Medical School of the University of Virginia in 1902, and shortly after graduation, entered the medical branch of the navy. He is survived by his widow and a brother.

Dr. Paul Lee Cocke.

Word has been received here of the death of Capt. Paul Lee Cocke, M. R. C., while serving in the U. S. Expeditionary Forces in France. He was formerly of Brems, Va., but has made his home in Birmingham, Ala., for some years. He was graduated from University of Virginia, School of Medicine, in 1899. He is survived by a widow and a number of relatives.

RESOLUTION ON THE DEATH OF DR. R. S. MARTIN.

(By the Medical Examining Board of Virginia.)

Dr. R. S. Martin, one of the best known and most beloved physicians in the state, died at his home in Stuart, Va., June 23, 1918. He was born in Stokes County, North Carolina, November 15, 1859. He studied medicine at the College of Physicians and Surgeons, Baltimore, from which college he graduated in 1881. He then served as resident physician in the Maryland Women's Hospital, 1884-1885, and as assistant to Dr. Errich. Following this, he located at Stuart, Va., and a few years later established the Mother's Home, one of the pioneer private hospitals of the state, which hospital he continued until his last sickness. In 1901, he was made President of the Medical Society of Virginia. 1900-1912, he served as Secretary of the State Board of Medical Examiners, and as President from 1912 until the time of his death. He was elected to the State Legislature, 1917.

We all loved him. In reading the milestones that marked his useful life—his graduation from college, his years of tireless service in hospital and private home, his establishment of Mother's Home, a pioneer of private hospitals, his Presidency of the State Board, his Presidency of the Medical Society of Virginia, his election to the State Legislature—in all these we, who were his friends, feel a certain sense of pride in his brilliant attainments. But after all is said and written, the whole history of the clean brave man resolves itself in the simple little statement that comes throbbing from our hearts,—we loved him. We loved him for his genial soul, for his courage, for his breadth of vision; we loved him for his tenderness, and his firm, steady hand held out to help. We would not cover him with fulsome praise. He was our friend. We cannot think of him as dead. To us who knew and loved him, he can never die. He has just taken up his candle after a weary well-spent day and gone to bed. May his rest be sweet!

P. W. BOYD,
W. W. CHAFFIN,
J. H. AYRES, Committee,

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Original Communications.

PARESIS—A LOOK-BACK ON RECENT THERAPY.*

By JAS. K. HALL, M. D., Richmond, Va.
Westbrook Sanatorium.

Many features of paresis, which is better known by the more descriptive term of general paralysis of the insane, make it both an interesting and a baffling problem for the modern medical man. The disease, in the first place, is probably distributed rather widely amongst all civilized and enlightened peoples. It is one of the poor, compensatory concomitants of civilization. The disorder often develops most insidiously and slowly, and the diagnosis is not easy. I think it is true that no other malady involving mental abnormality can produce such diverse and variable manifestations in the mental domain. At times, the development of the disease begets profound mental depression; again, the normal way of thinking and of acting is replaced by sudden elation and frequently by violent and even dangerous behavior. What would seem clinically to be melancholia may be early paresis, but noisy and destructive behavior may likewise prove to be the earliest manifestations of the same disease. From the clinical point of view, therefore, the diagnosis is never easy. The tendency of the disease to strike down its victim in the mid-period of life, when he is most active, most weighed down by duties and by responsibilities, and oftentimes when he feels and seems most fit, constitutes its saddest feature. As a rule, it begins between the thirtieth and the fiftieth

year.* But worse than the manner or the time of its initiation is its course—which is invariably deathward. In no other diseases, perhaps, is the onset more unexpected, the course more distressing, and the termination more certain. Paresis is, indeed, the boon companion of Death.

The discovery of the specific cause of the disease is a triumph both for the methods and the spirit of modern medicine. The discussion and the theorizing about the relationship of syphilis to the disease finally found settlement in the simultaneous announcement of Moore and Noguchi that hidden deep in the brain of a number of paretics they had at last found the syphilitic parasite, and now paresis is probably looked upon simply as a rather peculiar manifestation of chronic syphilis of the central nervous system.

Although this discovery threw much needed light on a dark field of medicine, there remain to-day many phases of the disease that are poorly illuminated or not at all understood. It must undoubtedly spring out of long-standing syphilitic infection, yet most syphilitics escape paresis. It is quite probable that not more than 3 per cent of all syphilitics later become paretic. Even active treatment of syphilis in the early stages would not seem to guarantee against the later development of paresis. On the contrary, we know that many syphilitics seem to make unaided, spontaneous recovery from the disease and wholly to escape paresis and other baneful consequences. The explanation of these things is hidden from us. We do not understand them. Neither do we understand the long

period of good health intervening between the disappearance of the early syphilitic symptoms and the first evidence of paresis. As a rule, paresis does not develop until ten or fifteen years—often longer—after lues was contracted. In what portion of the body the spirochete lies in hibernation all these years, and why it lies quiet, no one knows. Neither is it known to us why these parasites suddenly become revived, aroused, and so terribly and destructively toxic. It may be possible, I presume, that spirochetes, like the stars, differ amongst themselves, and that one strain may be more potent than another. This theory is entertained, I believe, with reference to certain bacteria. From this view-point it might be possible for one strain of spirochetes to produce paresis, while another strain would be lacking in potency either in kind or in degree. It may be within the realm of possibility that one human individual may be biologically able to fight to a finish a luetic infection; another may be able to put the spirochetes out of the ring for many years—to stun them for a long time,—but when they recover the individual's biological defences against them may be exhausted. These theories are interesting, but inconclusive.

Vigorous treatment of paresis is justified both on account of the established provocative specific cause and for the further reason that the age of the patient makes him worth the effort to save him. As a rule, the last and the better half of his life is un-lived. Untreated, he is doomed to death, while proper warfare against the infection may prolong or even save his life.

Since the specific cause of the disease has been established, the one purpose of treatment is the eradication of the spirochete. This purpose calls for the use of a parasiticide, and the use of such an agency always implies the possibility of damage to the infected organism as well as to the infecting spirochete.

Some of the agencies used in combating syphilitic infection are extremely old. The Chinese, for instance, made use of mercury for this probable purpose many hundred of years ago. The modern physician has used it empirically but wisely, and to-day mercury maintains its standing as the universal defence against a world-wide scourge. It is cheap, available, within the economic reach of all,

not dangerously toxic, and yet a sure specific against the parasite. The iodides, long in use in the treatment of syphilis, have not been looked upon as active parasitocides, but recent researches tend to indicate that they likewise destroy the spirochete. Well within the last ten years it has been demonstrated both by experimental and by clinical work that certain compounds of arsenic are deadly to the luetic parasite, and to-day some of these preparations are regarded as the mainstay in the treatment of the disease. Salvarsan, with certain acceptable substitutes, is now regarded as the chief anti-syphilitic remedy. Mercury and iodides are looked upon as helpful adjuncts.

Along with the improvement in the preparations used against the spirochete came new methods of administering these syphilitic remedies. Direct incorporation of substances into the circulating blood is not new, but the method was never used freely until the salvarsan preparations were used in this way. The blood stream makes it possible to disseminate immediately throughout the body tissues any soluble substance. The tendency of the syphilitic parasite to burrow deep into the brain tissue makes it inaccessible to the circulating blood, and for this reason an avenue of approach was sought through the medium of the cerebro-spinal fluid. This fluid comes into rather intimate contact with the superficial surface, at least, of the brain and cord. The hope is entertained that this fluid is reabsorbed into the blood and lymph capillaries, and that during this process any parasiticide substance carried by it may be brought into contact with the deep-seated spirochetes.

One or two reasonable objections present themselves immediately to the approach to the spirochete by either of the above routes. It has been fairly definitely established, in the first place, that a salvarsan preparation administered intravenously rarely, if at all, finds its way as such into the cerebro-spinal fluid. It is assumed, therefore, that spirochetes occupying deep-seated positions in the brain are not reached by the remedy when administered into a vein. In other words, soluble substances administered intravenously possibly do not disseminate themselves thoroughly throughout the brain and the cord. In an effort to overcome this objection, the subarachnoid space, occupied by cerebro-spinal fluid, was thought of as a reservoir from which remedial substances

might be carried. This fluid is in intimate contact with the central nervous system, but our knowledge about it is rather meagre. Its origin and its purpose are both probably unknown. It is in all probability a secretion but evidence that it circulates in a systematic manner is lacking. Its movement may be of rather accidental and external origin. The assumption that it finds its way into the blood stream through the capillary system is not founded on indisputable proof. The difficulty then in treating the disease would seem to lie in reaching the parasite with the specific. Satisfactory drugs are available; applying them to the infected region constitutes the problem.

Certain rather definite dangers present themselves as unpleasant possibilities in the administration of these remedies either intravenously or within the spinal cord. Accidental infection can, of course, be avoided, but the substances themselves are highly toxic, and they may cause damage to certain cells of the body as well as to the spirochete. I regard the kidneys and the proper tissue of the brain as extremely susceptible to the toxic action of these anti-syphilitic substances. We must remember, too, that the brain of the paretic has already been rendered less resistant by the inroads of the disease process, and that slight additional damage may cause its final physiological disintegration. It is not unwise to remember this fact at the time of contemplated impregnation of the cerebro-spinal fluid with a highly toxic and irritating substance. A certain number of paretics are made worse, and their lives are shortened, I feel quite certain, by any kind of specific treatment. A probable explanation of this assumption is offered by the theory that the specific substance is sufficient to irritate and to arouse, but not able to kill, the spirochete. It acts, perhaps, not unlike the warm sunshine of spring on the hibernating rattlesnake.

Any kind of treatment of paresis whatsoever is, in my opinion, inadequate and unsatisfactory. Although we now know the specific cause, and understand fairly well the course of the malady, we are unable to produce cures, notwithstanding the fact that we are provided with two or three so-called specifics. What are the causes of our gloomy view of paresis? The disease is, in the first place, the result of long-standing infection of the central nervous

system—the most important but the most easily injured portion of the body. Even when the diagnosis of paresis is made early, irreparable damage has already been done. The parasitocides at our disposal are probably not altogether adequate, and they are certainly not harmless. If given in strength sufficient to kill the parasite, they are prone to kill the patient, or to add to the damage already wrought by the disease.

Syphilis will undoubtedly be on the increase in this country after the close of the European war. We will encounter new strains of spirochetes, and the resulting infection may be somewhat different from that with which we are familiar. What should be our attitude to the paretic and to his family? For his own welfare and the safety of society we should see to it that he is promptly placed under proper restraining influences. His family should then be told that he is in the incipency of a disease that will almost certainly prove fatal, but that he ought to be treated for the infection. In carrying out this treatment we should be constantly on the alert not to add by injudicious medication to the damage already wrought by the disease.

DISCUSSION.

Dr. H. E. Jones, Roanoke.—Dr. Hall has presented a good paper, but I do not believe what is claimed—that the antiseptics we use do not get into the brain. A solution of mercury or a solution of arsenic will go anywhere that a solution of morphine will; it is even more penetrating. If the serum or if the liquid portions of the blood containing whatever it may have in solution doesn't get into the nervous system by direct circulation, but something on the order of osmosis, the more the reason mercury or arsenic will get in there just as morphine, strychnine or any of the balance of them. We know from the use of anodyne and narcotic drugs it does. If ether and chloroform can get there, others can. I have seen late cases of typhoid fever, men were absolutely unconscious, knew nothing, men or women, and I have given them—that is adults—as much as $1\frac{1}{4}$ grains of mercury bichloride intravenously, and in from ten to twelve hours they would know everything going on around them. It had a physiologic effect upon the toxins of the germs of the disease. The reason we are having paresis, which is the pathology or consequence of the infection, is because these cases are not treated sufficiently,—not on account of the neglect of the doctor in many instances, but on account of the neglect of the patient, and the fault is in a great many physicians not giving sufficient doses. It is my belief that the drug goes directly to the brain as well as any other tissue of the body, whether the liver or any other organ.

Dr. Hall had nothing to say in closing.

PUBLIC SANITATION.*

By EDWIN M. MANN, M. D., Kenbridge, Va.

In view of the condition which our country is now facing, I sincerely beg your earnest and undivided attention to a subject which is of most vital interest to the future of our beloved State, and I might say country. I refer to Public Sanitation. Make a careful examination of the children in the country and of children in the crowded cities, and then compare the same, and you will find that, as far as children are concerned, the much-vaunted "good health of the country" is a decided farce.

You will ask, why is this? To answer is not an easy matter. In many instances defects develop because medical and dental attention is not readily available; in still others, the lack of sanitary devices in the home and in the public school are the responsible factors. But in the great majority of all cases the children are defective because of the unsanitary and unhealthy conditions that surround them in the schools. That which should be the citadel of health has proven to be the stronghold of disease; the school, instead of teaching and exemplifying the prevention of disease, is often responsible for the spread of communicable ills. Bluntly put, the State and county, which tax themselves to improve the minds of their future citizens, often handicap the children in their physical development by forcing them to study in surroundings that are dangerous to health and almost fatal to good and successful teaching.

If the children of the average rural school are to be raised in health and strength, and if they are to reap the full advantages of the money expended for their education, we must have better sanitation in the schools; otherwise, we are wasting time, effort and money, and thus crippling our youths.

There are several essential things that must be had in a school to protect the health of teachers and pupils. I shall deal entirely with the most important of all, the sanitary privy.

There are many schools in Virginia where limited means often prevent proper arrange-

ment. It is poor economy, it is worse than no economy, that saves in sanitary arrangements where the health of children is involved. But, however wrong, such mistaken economy exists in some counties and should be dealt with. As to sanitary privies, on this question, we only need backbone and moral courage among the people, for they are amply backed and supported by the statute laws of Virginia and the rules and orders of both State Health and Educational Boards.

The first essential in school sanitation is the provision of the two sanitary privies, one for boys and one for girls. There are two reasons for the provision of sanitary school privies, each of which should be in itself sufficient reason to provide every school with the necessary privies.

The first reason is that of modesty and morality.

For a proud race, jealous of the honor of its women, to require that the teacher and female pupils of all ages, from seven to eighteen, should during the course of a long school day be unable to answer the calls of nature, without being subject to the danger of prying eyes, is a disgrace to a civilized community.

This is a very serious aspect of the question and cannot but appeal to a people, like those of Virginia, who place above every other consideration the sanctity of their women.

Parents jealously guard the modesty of their children at home and rear them to view modesty as one of the greatest of virtues, as it is one of their noblest of charms. Strict and immediate justice is meted out to any man who invades, even in the slightest degree, the privacy of Virginia girls.

Yet these same parents unthinkingly permit the schools which they support to hazard the modesty of Virginia's daughters by requiring that they meet the calls of nature, not in a well-screened privy, but in the bushes and woods.

The whole is unthinkable and could not be mentioned in print but for the fact that more dark tragedy of life has been dated back to familiarities bred at school through the lack of sanitary conveniences.

With an experience of eight years in health work in Virginia behind the above statements, the State Board of Health is forced to declare

*Read before the Southside Virginia Medical Association, at Suffolk, Va., June 18, 1918.

The Association adopted a resolution unanimously endorsing Dr. Mann's paper and ordered that a copy be sent, by the Secretary, to the State Health Commissioner and the State Superintendent of Public Instruction, urging them to have the law enforced.

that unless school authorities and public sentiment will sustain them in efforts to procure two sanitary privies at every public school in Virginia, they despair of success in their efforts to protect the health of school-children. Unless they can get these bare essentials of good health for the children of Virginia, the State is wasting time and energy when it attempts to improve the sanitation of schools in other respects.

Modesty, morality and common decency demand that privies be provided properly at every school.

The second reason is that of health. Instead of rendering easy, natural and prompt response to the calls of nature, the discomfort and lack of privacy of present conditions in most schools encourage irregularity, and lay the foundations for many cases of habitual constipation and with all the ills that follow such a condition.

Equally important, in a climate like that of Virginia, is the spread of disease as a direct result of soil pollution. We have learned from sad experience that with the present prevalence of hookworm disease in Virginia, the pollution of the soil about the schools, in the woods and in the fence corners results in heavy infection of the soil with the young hookworms, which spread from the eggs deposited on it from the bowel discharges of infected children. During the rainy weather of the fall and spring, when the children are barefooted, they may readily be infected with hookworm disease. In this way a truly terrible disease, confined in the beginning to one or two families, may be spread to the entire neighborhood. In addition to hookworm disease, typhoid fever and other diseases may be spread as a result of soil pollution. Even more important, the very severe soil pollution which always exists about a school without sanitary privies may result in the infection of the school well, the wells nearby, or the springs and streams draining from the polluted soil. In addition to the reasons why there should be two privies at each school, there is another consideration. The children who attend school after the formative period of their lives get from the school ideas that are to shape their minds for all time. What better can they learn in sanitation than that conveyed by the regular use of a sanitary privy

and that such filth is dangerous and should not be scattered.

The laws of the State require that every school be provided with two sanitary privies. School trustees have no option in the matter. Superintendents are required to regularly visit the schools, inspect the privies and see that the school laws and regulations are strictly enforced. Under the statutes of Virginia it is a misdemeanor to open a public school without two sanitary flyproof privies, and subject to a fine prescribed by law. On October 10, 1912, an earnest appeal was made to the State Board of Education in the interest of the rural public schools of Virginia, concerning particularly the sanitary condition of the same.

The action taken by the State Board of Education, declaring that funds would not be allowed to schools that were lacking in sanitary essentials required by law, led to many important changes.

The opening of the small schools in the rural districts in 1912 was marked by many substantial sanitary improvements. Many conditions that menaced the health of school children have been remedied. I believe I am correct when I state that the order adopted and issued by the State Board of Education on October 10, 1912, was the cause of about thirty thousand dollars being spent in repairing the insanitary condition of the privies of the rural schools, thus improving the sanitary conditions.

Some superintendents have interested themselves in the health of the children under their care and have examined into the condition of their schools and have rendered much good and valuable service along this line.

Yet, many superintendents and, I might add, health officers in Virginia, who have not given their proper attention to the sanitary condition of their schools and are ignorant of the exact condition of the schools under their care and charge, would be amazed to know how disgraceful and primitive is the sanitary condition of the privies of many of their schools. In spite of the great improvement in many counties, there are hundreds of schools in the rural section of our State today, where practically no attention is paid to the health of the children.

Where there is no strong local sentiment in

behalf of improvement, it seems impossible to get the State Board of Health or the Department of Public Instruction to correct these conditions, which can be easily accomplished by enforcing a strict compliance with their orders and regulations. It is evidently true that if the parents and the tax payers, who foot the bills, will advise themselves of the exact conditions and will demand necessary changes, the school trustees will proceed promptly to make them. In many communities application for sanitary improvements have been made by the people without results, until the people have given up in disgust in making investigations and requests.

This great negligence of the principle of the small rural schools, which entirely concerns the farmers and his children, involves a deep shame on us and an immense disadvantage to the State, for the farmer is certainly one of the fundamental partners of every good government. In the words of President Woodrow Wilson, "It is a very significant thing that the petition 'give us this day our daily bread' comes first among the petitions of the Lord's Prayer. All spiritual requests come after it. We cannot conceive our best interest or follow our best instincts until we are fed, and it would be natural to suppose that in every well-ordered government the farmer would at least have equal consideration with everybody else in the public schools and political policy.

"We should always bear in mind that the government is not put here to be run by parties: it is put here to serve mankind. We should not forget that the traditions of the republic and our government should bear only the mandates of the people."

The practical thinking men of the present day base their hopes of sanitary progress on the education of the masses as the real groundwork of national health and prosperity.

Public hygiene which is required to be taught in our public schools, may be defined as that branch of sanitary science which concerns the physical condition of communities. It embraces a consideration of the various influences operating upon society whether for its material good or its actual deterioration, with the view of extending the former, and preventing, or ameliorating, as far as possible, the effects of the latter. It involves the en-

actment of laws by which the safety of the whole may be protected against the errors of a part, and, above all, it aims at the prevention of disease by the removal of its avoidable causes. The people must be taught that good conduct, personal cleanliness, and the avoidance of all excesses, are the first principles of health-preservation; the mental and physical training must go hand in hand in the rearing and guidance of youth; and that morality does not consist so much in a blind observance of the formulae of empty creeds as in a hearty submission to precepts of health. Nor is this all. They must be interested systematically in the general results of sanitary progress, and become more intimately acquainted with the social and material causes by which it is impeded. Unless a knowledge of these fundamental principles of hygiene be widely disseminated amongst them, it is in vain to expect that legislative enactments, however well devised, will succeed in raising the standard of public health to any considerable extent.

In a wide sense, therefore, the science of public hygiene enlists the services of the people themselves in continuous effort at self-improvement; of the teachers of the people, to inculcate the best rules of life and action; of physicians in preventing as well as curing disease; and of law-givers to legalize and enforce measures of health-preservation. But while it is the special providence of the medical profession, as guardians of the public health, to study the cause of physical deterioration and disease, and to point out how far these causes may be controlled or everted, the general well-being of the people must mainly depend on their exertions and self-restraint. Sanitary improvements in man's material surroundings will not compensate for social transgressions against laws of morality; for public virtue is essential to public health, and both to national prosperity.

On December 11, 1913, instructions as to sanitary arrangements for country schools were sent out by the superintendent of Public Instruction in a special bulletin prepared with assistance and approval of the State Health Department: "All local school boards are put on notice that compliance with the State laws in the matter of protecting the health of the children will be mandatory. It will be made

a condition precedent to the payment of State funds hereafter, and where local authorities do not provide sanitary appliances, the State will deduct the cost from the State apportionment of school funds."

The circular states that the health of 427,801 children gathered in 6,690 schools is at stake. Each one of those 6,690 schools, the circular says, can be furnished with sanitary arrangements at a cost of not more than \$25 or \$30, and in view of this small cost, further negligence on the subject is held to be little short of criminal.

The State law is positive and peremptory, gives the Department of Public Instruction and the State Board of Health ample authority. There will be no let-up in the campaign, the circular states, until every school in the State meets the requirements of the law. Full plans and specifications for the necessary improvements, prepared by the State Health Department will be furnished by the Department of Public Instruction.

The circular says: "The Department of Public Instruction will countenance no half-way measure. It intends to have every school equipped in the manner prescribed by law before the close of the present session. Excuses and explanations will not be accepted. Literal compliance with the rules is demanded. It is intended to withhold State funds from the high and graded schools until they have conformed to the rules. In short, compliance with the law is a condition precedent to receiving the funds.

"Faulty sanitation looms up as the greatest single defect of our educational system. The facts are too distressing to be stated in full for the public, but the results of our carelessness and neglect may be stated in a few sentences; the efficiency of our rural schools is reduced at least 20 per cent by the abominable insanitation that prevails." Virginia is favored in having school laws, but a lot of unjustifiable "winking" at broken laws has gone on far too long. This is a late day for temporizing with such unmitigated evil in some of our school conditions. All good and true citizens of the State should stand for and insist on the enforcement of the school laws. It is a treason of the deepest dye to violate the school laws or be a party to the disregard of the laws which deeply effect the mental, moral

and physical condition of the 780,00 public school children of to-day."

Then let the public officials, into whose hands is committed the responsibility of administering the school statutes, perform their whole duty or get out. Let every high-minded, law observing citizen do his part well, and demand the proper enforcement of the statutes. That the school laws be strictly enforced is the only remedy for the extinction of typhoid fever, hook-worm and other deplorable conditions in some sections of the State. I hope and believe that Virginia will soon join herself with those States in the Union that believe in a popular government, where the people really control the affairs of their government.

They certainly do not in the historic Commonwealth of Virginia, where the people have no choice in the election of their school officials. This is fundamental in the right of self-government in the State. It will be observed that Virginia is the only State in the Union that denies every county the right of selection of its county superintendent of public schools.

It is not pleasant to criticise physicians; but friendly criticism should be always welcomed. The family physician does not, in a great majority of instances, fulfil his function, or extend his field of usefulness to its full capacity; his conception of duty is too often including only the sick.

The people furnish the money with which to employ the State and county officials who are to conduct and manage the public schools, and the only duty and obligation of the people, besides this, is to send the children to school.

The State Health Department's duty is to study out and formulate the necessary health regulations that are to govern the sanitary conditions of the public schools.

The State statutes give all the health regulations, passed by the State Health Department, the full force and power of the law.

The State Board of Education is to appoint the officers and teachers, formulate the regulations that are to govern the public school system and to see that the laws and regulations of the State Health Department, the State Board of Education and the statute laws of Virginia are strictly complied with and enforced.

The laws and regulations are all right, but the failure of "somebody" to carry out the same is the most serious fault.

The great question is, who is that "somebody"?

THE HUMAN RACE AND THE RACE FOR SUPREMACY.

By CASPER L. REDFIELD, Chicago, Ill.

This is about war. But it has nothing to do with the origin, outcome or political aspects of the present war. What I have to say bears on the relationship existing between past wars and the advancement of the tribes and races of men who lived in those times.

A war is a test of strength between two groups of people, and in such a test the weaker goes down in defeat. Frequently the difference in strength between the two groups is a difference in numbers, but more frequently it is a difference in power in the individuals which compose the groups. It has happened many times in the past that large numbers have been completely defeated by small numbers who were individually much superior in intelligence and physical endurance. An illustration of this would be the defeat of the Hindus by the British in the Sepoy rebellion.

Dominance in the past has been principally if not exclusively a dominance obtained by the war making power. Our "civilizations" have been those groups which have been most successful in the savage process of fighting, and those which have been most successful in fighting have been those which were strongest.

In looking over the centers of civilizations we find them beginning in semi-tropical countries and then gradually moving northward. After Egypt and Babylonia came Greece a little further to the north. Next the center of civilization moved to Rome slightly further north. From the time of the fall of the Roman Empire to the present there have been many shifts, but gradually the center of civilization and power has moved northward until now we may say that it runs along northern Germany and France, England and the northern part of the United States. There is, of course, no definite center of civilization at the present time, but we all recognize the fact that the principal part of human progress occurs in sections which are well to the northward of Greece and Rome.

When we look at individual wars we find that the tribe or nation whose habitat is further to the north normally defeats the tribe or nation whose home is further to the south. Looking closer, we find that the victor, when other things are equal, is the people who live in the colder climate, and the defeated is the people who live in the warmer climate.

From a consideration of the various facts involved we may say that a cool or semi-cold climate promotes the development of intelligence and bodily vigor in those peoples who live in such climates. Amateurs coming upon this fact would normally give this out as the latest determination of science, whereas it is not science at all. It is only an item with which science may deal. The matter comes into the domain of science only when we can explain that fact in the terms of some other facts of a known kind. Human advancement has moved northward step by step and at the present time the most vigorous and intelligent people are those who live in comparatively cold climates, and whose ancestors lived in the same kind of climate for many generations. Why?

Man needs a habitation of some kind. In a warm climate a tent or cheaply constructed hut or house serves every purpose. In a cold climate a man must, or usually does, build a more substantial house to protect himself in winter. This more substantial house requires more mental effort in planning and more physical labor to construct.

In a warm climate man needs fuel only for cooking purposes. In a cold climate a man must provide fuel to warm his house in winter, and that requires extra efforts on his part. In a warm climate a man needs but little clothing. In a cold climate a man must provide extra clothing for winter protection, and providing this extra clothing demands extra labor. And so on for many things. The people who live in cold climates must and do exert themselves mentally and physically to a much greater extent than do those people who live in warm climates.

When a man goes into a gymnasium and swings Indian clubs and dumb bells he exercises certain muscles, and those muscles gain strength as a result of the exercise. The fact that muscles gain in strength as the result of exercise is well known and is used by athletes

in preparing for physical contests. It is also used by the Government in preparing our soldiers for war. And it is used by drivers in training trotters for racing. In this last case we have definite records which show continued development of muscular strength for many years in succession.

What is true of muscular development as the result of muscular exercise is true of mental development as a result of mental exercise. A man gains in mental power as the result of mental efforts, and a man who is mentally active will continue to gain mental power up to a high age. The Binet system recognizes this in childhood, and in ordinary affairs we recognize it in later life. A young man is energetic and ambitious, but he does not have that mental development which enables him to meet unexpected problems as well as such problems are met by older men. That fact is being continually demonstrated in the war in which new and unexpected situations are continually presenting themselves and must be properly met.

As a result of various investigations it is learned that the offspring inherits that particular muscular or mental development which existed in the parents at the time the offspring was conceived. For muscular development this has been traced very accurately in the trotting horse for a period of about one hundred years. In improving lines among these animals each generation in succession inherited more trotting power than was inherited by its predecessor. But an offspring cannot inherit what the parent did not have. If the offspring is to inherit more than the parent inherited, the question arises as to how the parent got that which he did not inherit.

When we take the best trotting stock of the present day and run their pedigrees back four or five generations we find that these superior animals were not produced by any ordinary method of breeding. We got these improvements only from parents, grandparents, great-grandparents, etc., who developed their trotting muscles to an unusual extent before reproducing. This fact is seen partly from the individual histories of the progenitors in those pedigrees, and partly from the high ages at which they appear as sires and dams.

When we turn our attention to human beings we find the same facts there. Intellectually eminent men come from old parent-

age and not from young parentage. While an eminent man is sometimes the son of comparatively young parents, he is never the son of young parents who were the children of young parents. In pedigrees of eminent men the average age of one thousand fathers, grandfathers, etc., was over forty years. When we analyze the distribution of births in the pedigrees of eminent men, and compare that with the normal distribution, we find that the older the father is when the son is born the greater is the inherited mental ability of the son. When we look back at the fathers and grandfathers of these eminent men to see what kind of lives they lived before reproducing, we find that it is not the abstract age of the father which determines the matter. It is the extent to which the father developed his mental powers by mental efforts. The age of the father is simply a factor in measuring the amount of his efforts, and consequently a factor in measuring the mental development coming from those efforts.

To enable them to exist with any degree of comfort, men living in cold climates must work much harder than men living in warm climates. This extra work is both mental and physical, and the result of such work is a corresponding development of mental and physical powers. At the time of reproducing, the man of the north is somewhat more developed than his brother to the south, and their sons inherit the difference. This is repeated generation after generation until small differences grow to be great differences. Then, when there comes a clash of arms, the southern man falls before the man of the north.

Warlike tribes and warlike nations have always been noted as being superior, mentally and physically, to their more peaceful neighbors. Why? Looking at the matter closely we can see that it is for the same reason as that before given. A tribe or nation which spends much time in the practice of war must necessarily do much mental and physical work which would otherwise be undone. This extra work causes extra mental and physical development, and children coming from such developed persons have better power inheritances.

Where war spirit and war preparations become a part of national existence, as in Sparta, Rome and modern Germany, another factor enters into the matter. The soldier is trained

when young and is not permitted to marry at as early an age as his ancestors married. As a result, there is a rise in the average age at which parents produce their children, and the status of any tribe or race of people is determined by that average. The lowest tribes are those which reproduce at the lowest average age, and the highest are those which reproduce at the highest average age. This is, of course, modified by the degree of activity. Each increase in mental and physical activity on the part of parents causes a corresponding increase in the inherited capabilities of the offspring, even when there is no increase in the age of the parents at time of reproducing.

Wars have caused the death of many of the best men of the nations at war, and the men so killed have been eliminated from the general stock. Yet it is a plain fact that those tribes, races and nations which have lost the greatest numbers of their best men, yet not enough to cause extermination, are the tribes, races and nations which have advanced most rapidly from a low to a high stage. The explanation is simple but it is not that of the eugenist doctrine. Good men were killed, but the extra efforts caused by warfare gave to the survivors an extra development which more than balanced what was lost by deaths. The next generation was produced by these survivors and inherited their acquired development.

War is and always has been a destructive agent, but the preparations for war and the activities growing out of war have been a constructive agent. We learned this first fact from war itself, but the second fact we learn from other sources. Now that we know what it is that brings about progress, we can have that progress without any of the disadvantages of war. One of the first things to do is to shut off marriage by minors so that we will not be producing inferior stock by undeveloped parents. Another thing to do is to introduce more physical training into our schools so as to check a growing tendency toward physical degeneracy. 525 *Monadnock Block*.

Fighting Yellow Fever.

An American sanitary commission has arrived at Guayaquil, Ecuador, to co-operate in wiping out yellow fever. The commission, which was sent by the Rockefeller Foundation, includes four physicians and six nurses.

Clinical Reports.

FOREIGN BODY IN OESOPHAGUS—OPERATION FOR REMOVAL.*

By F. J. MORRISON, M. D., Suffolk, Va.

Colored child, male, age one year, brought to me on April 18, 1917, with the history of probably having swallowed a penny five days previously. Had had some vomiting and nausea. Not apparently in pain. Could swallow food with difficulty but had been fed principally upon liquids.

Examination showed well nourished boy apparently normal in every respect, but swallowed water with some effort but no pain. X-ray picture showed penny lodged in oesophagus at the level of the sterno-clavicular articulation.

Operation:—Under ether every effort was made to dislodge the penny through the mouth



but this was impossible owing to the fact that the penny was imbedded in the mucous membrane, and the orifice was so small.

A median incision about two inches long was then made just above the umbilicus, and the stomach drawn out, after being surrounded

*Read before the Southside Virginia Medical Association at Suffolk, Va., June 18, 1918.

with gauze wrung out in hot saline solution. Following this, a small rubber catheter was passed by the mouth to the stomach incision; to this a piece of linen was attached to which was tied three pieces of gauze. The linen was then withdrawn and the coin was delivered through the mouth. The stomach and abdominal wounds were closed in the usual manner without drainage.

The child made an uneventful recovery, and was discharged from the hospital on the twelfth day. Until the present time the patient has been well, presenting no symptoms of stenosis of the œsophagus. I might add that the coin was very much tarnished and covered with mucus.

In looking over the literature, I find that Dr. Bull, of New York, did the same operation several years ago, but passed the catheter from below upward, which I think is a better procedure when possible on account of the possibility of infection from the mouth.

AN UNUSUAL CASE OF PLACENTA PREVIA.*

By OTIS MARSHALL M. D., Culpeper, Va.

This case is unusual in that the patient has had three successive placenta previas, which to me has been very interesting, and which I hope will not bore you.

On March 25, 1915, I was called to see a married colored woman, aged 30, who had one living child, and was eight months pregnant. She gave a history of slight bleeding from uterus for the past week, but upon getting up that morning there was quite a hemorrhage. On making vaginal examination, I found a lateral tear of cervix, could insert one finger in cervix, which came in contact with placenta. Diagnosis was made of partial placenta previa. Vagina was packed so as to prevent further hemorrhage and help situation. Later in the day, with the assistance of a fourth year medical student, I dilated with fingers and did a version, and delivered a living child. Unfortunately this child died about seven days later.

On July 2, 1916, I was hurriedly summoned to see the same patient. This time I found her having quite a hemorrhage. Examination found placenta completely filling the cervix. Pushing this aside as much as possible, I secured the leg of the foetus and delivered both

the four and one-half months foetus and placenta at the same time.

Then, again on June 8, 1917, I found the patient to be three months pregnant and having irregular bleeding. Could touch placenta by forcing finger into cervix. After trying rest in bed and sedatives without good results, I with the assistance of another physician did a dilatation, cleaned out uterus and did a dull curettement. Several days after the first delivery, patient complained of pain in right side, which subsided in 24 hours. In second case, patient on fifth day had slight elevation of temperature and much pain in right side and some tenderness. This subsided in a few days after using ice bag and vaginal douches. The last time anticipating some pelvic inflammation, placed ice bag on side third and fourth days, and gave two vaginal douches. Patient had very little pain and temperature of 99 for twenty-four hours.

I have now come to the conclusion that the cause of this placenta previa is probably due to tear in cervix, and an old endometritis slightly involving the right fallopian tube. Of course, the treatment for this woman would be a repair of cervix, curettement and a swab of the uterine cavity with iodine. Having done this, would you tie off the fallopian tubes to prevent further pregnancies, or do you think it would be wise to allow her to become pregnant again after the repair work had been done?

Practical Points in Current Medicine

Public Health

General Instructions For Hay-Fever Subjects.

As the fall hay-fever season will commence about August 25, the American Hay-Fever-Prevention Association in accordance with its annual custom, issues the following instructions in the interest of public health.

In the selection of homes, hay-fever subjects should choose localities distant from weed-infested areas. The pollens of the grasses and of the summer hay-fever weeds generally do not ordinarily travel very far, and a mile is usually a safe distance. The pollen of the rag-weeds and other fall hay-fever weeds, however, are very buoyant, and, in windy weather, may travel 3 to 5 miles.

*Read before the Medical Society of Virginia at its forty-eighth annual meeting at Ronake, October 30-November 2, 1917.

During their attacks of hay-fever, patients should avoid localities infested with weeds generally, and especially those to whose pollen they are sensitive.

Should their neighborhood be infested with weeds, they should report these, in the interest of public health to the Board of Health.

During the hay-fever season, patients should avoid driving or riding into suburbs abounding in weeds. An attack resulting from this increased exposure may lower their resistance and make them more susceptible to the pollens in their own neighborhood.

A reasonable amount of exercise is beneficial, but this should be taken without increased exposure to the hay-fever pollens. Swimming, especially in salt water, is an excellent form of exercise.

Diet.—The diet of hay-fever subjects during the hay-fever season should be light as regards foods rich in protein, such as meat, fish, eggs, cheese and milk. Farinaceous food may be taken in moderation. Vegetables and fruits are of benefit.

High seasoning should be especially avoided, as it frequently reacts on the membranes of the nostrils, already irritated by the pollens. Alcoholic drinks are injurious.

In cases complicated by asthma, the rule regarding diet should be especially observed, and it is preferable in these cases to have the principal meal during the middle of the day.

WILLIAM SCHIEPEGRELL, M. D.

Obstetrics

The Care of the Breasts.

To the nurse is given the care of the breasts after delivery, with a few general directions as to cleanliness, the details of which we take for granted she has been taught.

Upon the care given the breasts during the first puerperal days will often depend the comfort of nursing, the relish with which the infant will perform its duty, and the proper lactation.

Cleanliness is all important, but the tender skin around and over the nipples can be injured and infection thereby easily started if strong rubbing is done or irritating solutions used. The boric acid solution usually recommended for bathing should be washed off with sterile water before the baby is put to the breasts.

The third and fourth days are the days of discomfort, due to engorgement of the blood and lymph vessels; this is often best relieved by the binder, saline purgatives, and restricted liquid diet, instead of the frequently advised breast pump and massage, with frequent nursing. The breast pump will not empty the blood and lymph vessels; it only makes them more tender and, with a diminished resistance, a good field for infection.

The cow that is not milked regularly will not give as much milk. Let the breasts have a physiological rest until the engorgement ceases, and we will not have serious trouble in the lacteal glands.

The baby does not need much nourishment during the first few days of extra-uterine life, or it would have been supplied; it has been used to a predigested food prepared by its mother, and it takes a few days to get its digestive system used to an extra-uterine diet. Jaundice in young infants, I believe, is often occasioned by a diet the stomach is not able to digest.

VIRGINIUS HARRISON.

Correspondence.

Advertisements In The Lay Press Concerning Venereal Diseases Prohibited.

To the Editor: Your attention is hereby called to the following act passed by the recent General Assembly of Virginia:

"Chap. 373.—An act to prohibit advertising concerning venereal diseases. Approved March 16, 1918.

"First. Be it enacted by the General Assembly of Virginia, that it shall be unlawful for any person, firm, corporation or association, except boards of health or agencies approved by State Board of Health, to post or otherwise exhibit or distribute in any manner whatsoever in any place any advertisement or other printed matter concerning venereal diseases, lost manhood, lost vitality, impotency, seminal emissions, self-abuse, varicocele or excessive sexual indulgence, and calling attention to any medicine or preparation that may be used therefor.

"Second. For each and every violation of this act the defendant upon conviction shall be fined not less than ten dollars nor more than one hundred dollars.

"Third. In view of the usual prevalence of venereal diseases in the neighborhood of the cantonments, thus endangering the health and efficiency of the soldiers, an emergency is declared to exist and this act shall be in force from its passage."

I have been appointed by the United States Public Health Service to co-operate with State and local boards of health and the Virginia Council of Defense in the control of venereal diseases. The rigid enforcement of the above act is necessary if health officers are to know when, where and under what conditions cases of venereal diseases are occurring.

A number of advertisements in violation of this law have been clipped from daily papers and sent to me. These will be referred to the law enforcement committee of the Virginia Council of Defense.

Yours truly,
W. A. BRUMFIELD,

The Misnomer of "Paralysis" In Referring To "Suspension Of Action" Or, "Relaxation" of The Ciliary Muscle.

In a recent letter from Dr. Courtney Edmond, Clifton Forge, Va., the writer states among other things that—

"A few years ago the late Dr. John Winn obtained considerable praise in various journals for suggesting that the term 'surgical intervention' be used instead of the customary 'surgical interference'—as 'interference' has a meddlesome ring to it, whereas 'intervention' sounds like the 'going in' is for a good purpose only. Dr. Winn stated to me personally that he had received some very complimentary letters about this apparently trivial thing and seemed to enjoy telling about it.

"I then stated to him that I often encountered in medical literature an expression which seemed to me absolutely incorrect, and, after explaining what it was, he said he agreed with me and promised to call attention to it in his journal—but, after all, he overlooked mentioning it. I find it in all of my text-books, the very latest book bought on ophthalmology having it. Here it is: In the use of mydriatics, such as atropine, homatropine, etc., for purposes of refraction, the various authors write of "*paralysis of the ciliary muscle*." My point is that in every case of paralysis there is pathology of some nature, whereas in the use of mydriatics we

merely suspend action of the ciliary muscle which recovers after a stated interval without trace of disease or pathology of any kind. In other words we do not 'paralyze' the muscle, for if we did the muscle could with the microscope be made to show 'pathology' of some nature."

Proceedings of Societies, Etc.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Reported by EMIL MAYER, M. D., New York, N. Y.

(Continued from page 120).

External Surgery of the Superior Maxilla in Treatment of Nasal Disease.

By JOHN F. BARNHILL, M. D., Indianapolis.

The difference in the viewpoint and method of attacking nasal tumors of the nostril and its environment depends to some extent, no doubt, upon the degree of surgical training of each class of operator, and also upon the respective ability of each to accurately locate the origin of the growth. In case the origin is from the ethmoid, turbinates, septum or one of the walls of the nostril, the symptoms of early obstruction will cause the patient to consult the rhinologist, who, either from tradition or belief in its greater efficacy, will almost without exception attack from within. If, however, the growth begins without the nostril, the general surgeon often sees it, usually at a late stage, and attacks it by those external methods universally approved by his branch of the profession.

Again, and rather frequently, malignant disease of the upper jaw attacks the alveolar process first, and from the fact that the earliest symptoms are neuralgia referred to the teeth, loosening of the teeth, and swelling of the adjacent alveolus, the patient is first seen by the dentist, who has been known to treat the teeth and even to extract healthy teeth, evidently in the belief that the disease is in some way connected with dental surgery.

A study of reported cases of sarcoma especially demonstrate on the one hand that rhinologists often have cauterized and snared at malignant growths in the nose whose undoubted seat must have been in some distant part of the maxilla, while on the other hand the general surgeon has been guilty of removing the entire upper jaw for a disease

that had its origin in the nose or in the party line between the nose and antrum.

While it is probably true that the statistics of the rhinologist are better than the statistics of the general surgeon in the treatment of malignancy of the nose and its environment, these statistics are not entirely fair to external surgical methods. It is conceded by all that the length of time a malignant tumor has progressed prior to the operation has much to do with the end results of most operated cases. It is undoubtedly true that the rhinologist and the dentist see malignancy of the maxillæ at an average earlier time than does the general surgeon. Sarcoma or carcinoma develop symptoms of distress much earlier when originating in the nose or alveolus than when the origin is in the antrum. Antrum malignancy may progress many weeks or even months before there is external or nasal swelling and before pressure symptoms cause pain.

A candid view of the facts concerning the surgery of the upper jaw for malignancy is not altogether encouraging. The reasons for this are clear, and some of them have been stated. External surgery of the maxilla is essential, usually more essential, to cure than intranasal surgery. The rhinologist who pretends to do radical intranasal surgery should prepare himself to follow surgical disorders leading from the nose to any part of the upper jaw, if not indeed, to wherever they may lead. When this is done, and when the diagnosis is made earlier than at present, great improvement of statistics may be expected.

All textbooks undoubtedly lay too much stress on total excision of the maxilla, for the reason, apparently, that it is presumed the disease has always advanced to a point that involves the whole upper jaw, or that any procedure short of total excision is inadequate.

One of the chief objections to the external surgery of the maxilla has been the deforming scars, the misplaced eye and the palatal defects that result. Early and definite diagnosis as to the seat of the beginning of the growth, and an early studied plan of operation, will very largely avoid this objection. Heretofore the plan of operation has been too much a matter of doing one of two things in any given case—namely, some degree of intranasal surgery by the rhinologist, or com-

plete removal of the jaw by the general surgeon. Earlier opportunity and sufficient thought bestowed on any given case on how best to break away from the traditional plan of total resection will in all probability find a satisfactory modified, yet thorough, operation to fit each condition present.

The writer has seen but four cases of undoubted malignancy whose origin was evidently within the nostril. Three of these cases were sarcoma, one epithelioma. All were operated intranasally, with one recovery—a spindle cell sarcoma of the inferior turbinated body. Two cases later extended to the ethmoid and antrum, were operated externally, one dying within about one year following the external operation, and the other within eighteen months. One case returned in the naso-pharynx, and was so rapidly extending that the patient lived but a few weeks after the onset of the nasal ailment.

DISCUSSION.

Dr. Joseph H. Bryan, Washington: I am very much interested in this paper of Dr. Barnhill's, for I am in favor of external surgery in these cases. I had a case operated upon this spring, not a malignant growth, but an exaggerated fibromatous condition. The face was enormously distorted, the eye greatly displaced, and it was clearly impossible to remove it intranasally. I did the Moore operation, and was greatly pleased with the tremendous facility which it afforded for the complete removal of everything within the maxillary antrum, and also the facility with which it aids in removing not only the growth in the antrum, but the complete removal of the whole nasal wall, including the superior middle and inferior turbinate bodies. In this case, unfortunately, the under surface of the wound became infected and broke down. It healed thoroughly, and while the scar is somewhat on the lower border, it was more than a good result under the circumstances. I believe this operation of Moore is by far the best operation—that is, for complete eradication of all these growths which take place within this cavity. This was not a malignant growth, but the same thing would apply to any growth which takes place within that sinus.

Dr. Bryson Delavan, New York City: The reference to the treatment of nasopharyngeal

fibroma leads me to say that I stand exactly where I did when I published the articles on that subject. Of course, there are exceptional cases where the growth has advanced far beyond what is usual, where it involves the sinuses to such an extraordinary degree that it is not practical to apply the treatment—the old fashioned at least thirty-year-old method of procedure of removal by electrolysis, which in the case of the less well developed growths has never been improved upon.

I have never heard of a case dying from the plan of treatment to which I referred, and I have not been able to find any in the literature where death has resulted, and the results are far better in every respect.

Hence, I want to again call your attention earnestly to the value of the electrolytic method of removal.

In any attempt to treat such cases with radium, it cannot be brought into communication with the growth. In those cases the best plan suggested has been the opening of the maxillary sinus, and the best avenue of approach seems to be through the roof of the mouth, where complete access can be gained to the maxillary sinus and where the opening can be kept patent. This is a great advantage, in that it enables the application of the radium to be made.

Dr. Hanau W. Loeb, St. Louis: I reported a case a number of years ago in which the tumor was removed by the electric cautery, and in which the hemorrhagic tendency was tremendously reduced by using the electrolysis method.

I may call attention to the ease of going into the nasopharynx by removing the posterior portion of the palate, as I did in a case of carcinoma in the epipharynx, a case not yet reported. The ease with which we were able to remove the mass from the nasopharynx was remarkable.

Dr. D. C. Greene, Jr., Boston: The subject as presented involves the field of rhinology occupied previously by general surgeons, and I would like to say a few words with this point in view.

As *Dr. Barnhill* has said, the tendency has been for general surgeons, in cases of malignant disease of the upper jaw, to perform a stereotyped operation, usually the classical operation, for removal of the upper jaw. In

many cases such an operation removes a great deal of healthy tissue unnecessarily, and, what is worse, fails to reach the limits of the disease. It seems to me that we, as rhinologists, are especially qualified, by reason of our technic in intranasal examination, to carry out more careful observation and removal of the diseased tissue than the general surgeons.

I have been fortunate enough to operate successfully on three cases—and there has been no recurrence in either case—of fairly extensive sarcoma of the nose involving the antrum and ethmoid sinuses, in which a complete exposure of the growth was obtained by means of the Moore incision, so that complete removal of the tumor could be effected in each case. The results have been most satisfactory. One case operated on eight years ago has had no recurrence, another four years ago, and another one a year ago.

My point is that I believe it should be emphasized that we are better qualified to examine and treat these tumors surgically than the general surgeon, because of our general training and technic in intranasal work.

Dr. John F. Barnhill, Indianapolis (closing the discussion): If we can definitely demonstrate that the disease is in the floor of the nose or on the septum, it then seems, judging from statistics, that we are entirely justified in attacking the disease by means of electrocauterization. But if, as may happen, the disease has begun in the nasoantral wall, or has begun in the alveola and spread to the nose, or in the antrum and spread to the nose, or has begun in the ethmoid and spread to the nose, the rhinologist should recognize that fact, and then either send this patient at an early date to a surgeon, or, if he is himself qualified to deal surgically with it, he should do that. It seems to me that the time has come when we should not be guilty of attacking a great subject in a small way, as has been done in nasal surgery of sarcoma.

I emphasized, or tried to do so in my paper, the fact that the general surgeon has not gotten these cases in time to do anything else but make the kind of an operation that he has usually done. We have attacked this disease and worked at the job, as it were, until there was often nothing else to do but to pass it over to the other fellow, and the other fellow often passes it over to the undertaker. There was nothing else to do but to pass it on to the

undertaker when it got so far along. But it is possible in nearly every instance, if we use some skill, judgment, care and patience, to make a diagnosis in these cases early enough and operate in time to cure at least many of these patients.

Some Points in the Surgical Treatment of Goiter.

By J. E. Mackenty, M. D., New York.

The writer emphasizes the need of laryngologists, and especially the younger men, to take up the surgery of the neck.

He considers all treatment with rest as a basis as deceptive, and the delay engendered pernicious. He does not, however, advocate surgery in all cases. In all progressive cases, short of already advanced toxicosis, some surgical effort should be undertaken, such as boiling water injections into the gland, ligation of one or more poles, removal of half the gland, with or without ligation of the remaining poles, etc.

In well developed and progressive toxic goiter nothing short of the ablation of three-fourths to seven-eighths of the gland can be relied upon to effect a cure. No operation should be considered until after the patient has been under observation in bed for a length of time, and has undergone a careful general examination.

Clinic calorimetry is now used to differentiate the active periods of the disease and to accurately determine the degree of benefit from any surgical or medical treatment. Early operation is most important. Local anesthesia should be rarely used, and never for any extensive operation. Deep anesthesia is not requisite. Rapidity of technic must be combined with gentleness of manipulation or it is valueless.

By complete operation is meant removal of from one-half to seven-eighths of the gland. In operating the four important things to be considered are: The parathyroids, recurrent laryngeal nerves, hemorrhage, and the amount of gland tissue to be removed.

These are considered in detail. Free drainage with a liberal opening is important, and permits continuous saline irrigation through the tubes, which is often exceedingly valuable.

Thyroidemia may be avoided by attention to the following points: Careful preliminary treatment, rest, overfeeding, etc.; the reduction of a minimum of fear on the part of the pa-

tient, light anesthesia, nontraumatic surgery, the judicious selection of the proper operation and correct time of operation; alkalis and water before operation, etc.

The following types of hyperthyroidism are bad risks:

1. Where the disease is progressive in spite of rest.
2. Cases showing no remissions
3. Appearance of psychosis.
4. Very active symptoms in cases with small glands.
5. Marked exophthalmus.

No case should, however, be refused some form of surgical help, providing it can be established that the disease is not in its terminal stage.

DISCUSSION.

Dr. John F. Barnhill, Indianapolis: It would be a fatal mistake to attempt any sort of operative procedure in a case in which the heart is so dilated or hypertrophied as not to be able to withstand the operation. The mortality from simple cases ought to be pretty nearly one hundred per cent.

I know of no other operation in surgery, except brain surgery, where a competent anesthesiologist is more useful than in this operation.

Every precaution must be taken to preserve the parathyroids, and this is best done by leaving a portion of the capsule posteriorly. The capsule in this operation I believe is the anatomic structure which must be borne in mind more than anything else, and if one loses his capsule and works outside the glandular capsule, he is lost for the whole operation, and he cannot, therefore, be certain as to whether he will injure the nerve or remove one or more parathyroids. Hence, his procedure must keep the surgical and glandular capsule in mind all the time, and if he works between them it is almost impossible either to injure the recurrent laryngeal nerve or to take away the parathyroid glands.

The patient is already, in toxic cases, badly run down, and, therefore, clean and bloodless surgery here is the thing. Shock does not occur often if you do not lose much blood.

The amount of a gland to be removed is an important question, requires the greatest knowledge, and it is here, I think, that consultation is often necessary. To remove three-quarters or seven-eighths of a gland that does

not need that much taken away is a mistake. To leave it if seriously diseased is equally a mistake.

There are often other glands involved along with this gland, and if that fact is not ascertained before operation and operation undertaken, the operator will almost certainly have a death, because to remove a toxic thyroid does not in such instances cure the case.

The gland must not be handled roughly or pulled up unnecessarily with heavy instruments by the operator or those helping him. It must be handled gently, because if there is toxemia there may be because of rude handling of the gland be unnecessary toxicity after operation.

Dr. Thomas Hubbard, Toledo: I see many of these cases before and after operations with reference to voice interference and difficulty in respiration. Fortunately, most of the cases in which there is an impairment of the vocal action, usually unilateral, improve within a reasonable time after operation. In others a supplemental action takes place in the opposite vocal cord, ultimately producing good voice, but with permanent impairment of movement of the cord on one side.

Dr. Harmon Smith, New York City: I have tried to ascertain in how many cases the nerve was involved previous to or during the course of the operative procedure. I have reached no decision which enables me to make any statement relative to the positive number, but a great many were involved previous to the operation. There was a paresis and not a paralysis. I expect to make some reports relative to it in due course of time.

Dr. John E. Mackenty, New York (closing the discussion): The reason for two tubes is that when you take out more than half the gland you have the trachea dividing the field. If you wish to secure complete drainage, you must put a tube on either side of this tube.

I believe the involvement of the laryngeal nerve interferes to some extent with the finer quality of the voice—as for singing or public speaking.

I have injured the nerve on one side and had impairment of the voice for a fair length of time, which was always recovered from, so far as speaking was concerned.

The Mayos report considerable percentage of nerve involvement before operation. I have examined cases pretty carefully, and have not been able to corroborate this. In a few cases

there seems to be some lack of proper tone or movement of the cord, but not to the extent the Mayos report in their examination of cases before operation.

(To be continued.)

Editorial.

A Five Million Army Means Fifty Thousand Medical Officers.

With an army of three million men in the field or in training and as contemplated, an expansion of this force to five million men, the Surgeon General must have in the Medical Reserve Corps at least fifty thousand doctors.

The Medical Corps must keep apace in growth with the army expansion and it behooves every doctor in the United States between the age of 21 and 55 who is physically, morally and professionally fitted to arrange at the earliest possible moment, his personal affairs so as to offer his services to his country in the capacity of a medical officer.

The United States is in the war to do her part in winning the struggle and this can only be accomplished by a large and well trained body of troops adequately cared for by sufficient number of medical officers. The importance of the doctor's service and its relation to the successful outcome of the war cannot be under-estimated.

As the mobile forces increase in size, so is there an expansion of Base Hospitals and other Institutions for the care of the sick and wounded and there should be no lack of officers when required to give to our patriotic boys, that professional attention which is so essential.

It is well for the medical profession of the United States to realize at once that a Medical Reserve Corps of at least 50,000 doctors will be required to meet the demands of the Surgeon General and upon which Corps he can draw for his medical officers.

We believe by this time that the profession of this country must be fully alive to the needs of the service, so let every doctor who is qualified, feel that he is doing not only his patriotic duty in offering his services as a medical officer, but is relieving the tension of the Surgeon General's Office by placing at the command of the Chief Officer of the Medical Department an adequate force without the frequent beat-

ing of drums to supply the necessary number with each increase of the mobile forces.

If you have not already received an application blank for commission in the Medical Reserve Corps, your nearest Examining Board or Maj. R. C. Bryan, Richmond, president of the Virginia Board will be glad to supply you.

The Piedmont Medical Society,

At its last semi-annual meeting, elected Dr. Lewis Holladay, Orange, president; Dr. Jesse Ewell, Ruckersville, vice-president; and Dr. James Walker, Gordonsville, secretary-treasurer. Dr. M. L. Rea, Charlottesville, was appointed leader for the next meeting, which is to be held in Gordonsville, October 19.

Control Of Venereal Diseases.

One million dollars will be expended by the Federal Government through the State boards of health in venereal-disease control during the fiscal year ending June 30, 1919. This sum is made available for expenditure, under regulations established by the Secretary of the Treasury, by an act of Congress approved July 9, 1918. An officer of the Public Health Service will have general charge of the work in each State in co-operation with the State health officer. The activities will be the following:

(a) Securing of reports of venereal infections.

(b) Control of those infected, so as to prevent further spread of the diseases.

(c) Establishment of free venereal clinics.

(d) Suppression of vicious conditions which favor the spread of venereal infections.

(e) Carrying out of systematic educational program for the general public as well as for those who are infected.

The act gives authority for a new division in the Bureau of the Public Health Service, to be called the Division of Venereal Diseases. Such a division has been organized and a chief appointed.

The act also grants authority to the Public Health Service for the regulation of the interstate travel of venereally infected persons. The regulations are in course of preparation.

Notes On M. R. C. Officers.

Dr. J. W. Devine, Lynchburg, Va., has been commissioned first lieutenant and ordered to Camp Greenleaf, Ga., for training.

Dr. E. C. Levy, formerly chief health officer of this city, has been commissioned captain, and is stationed at Camp Pike, Little Rock, Ark., where he will specialize in epidemiology.

Dr. M. C. Sytle, Richmond, has been commissioned captain and ordered to report to Camp Greenleaf, Ga., for training.

Dr. W. Clyde Adkerson, Lynchburg, Va., has been commissioned first lieutenant and ordered to Camp Greenleaf, Ga.

Dr. James Gordon Boisseau, formerly of this city, but now serving with the field artillery in France, has been promoted to the rank of captain.

Lt. James C. Doughty, U. S. Marine Hospital, Paris Island, visited his old home in Accomac County, Va., the middle of August.

Dr. Herman Hertzberg, of Hopewell, Va., now a member of the U. S. Naval Reserve Force, has been stationed in New York for several months.

Dr. Alan Chenery, U. S. Navy, on a return trip from overseas, visited his family in Ashland, Va., the middle of August.

Lt. John O'Brien, formerly of this State, but who was practising in West Virginia when he volunteered for service, arrived safely overseas early in August. After training at Ft. Oglethorpe, he was for a while stationed at Camp Devens, Mass.

Dr. Joseph Bear, of this city, received his commission as first lieutenant in the medical reserve corps, and left early this month for Camp Greenleaf, Ga., where he was ordered for training.

Lt. A. H. Deekens, M. R. C., Lynchburg, Va., since July 1st, has been post surgeon and sanitary inspector of the Remount Depot, Camp Logan, Houston, Texas.

Dr. John R. Littlefield, Cumberland, Md., is lieutenant in the medical corps, U. S. Navy, and is at the U. S. Naval Training Station, Hampton Roads, Va.

Dr. E. M. Chitwood, Austinville, Va., has been commissioned lieutenant and received orders to report to Ft. Oglethorpe, Ga., for instruction.

Dr. T. A. Williams, Middletown, has received a commission as lieutenant and also been ordered to Ft. Oglethorpe.

Lt. F. P. Fletcher, M. R. C., has cabled his wife of his safe arrival overseas. He is at present ranking roentgenologist of base hospital No. 62.

Dr. Kyle Rewarded For Gallantry.

Captain Bernard H. Kyle, M. R. C., of Lynchburg, Va., has been awarded the distinguished service cross in recognition of work done August 4, 1918. On this date, he took up an advanced position in front of Vieray, where he established and maintained the battalion aid station, collecting the wounded and applying dressings under heavy fire of high explosives, gas and shrapnel, which were falling all round the station, carrying on his work in a calm manner that inspired his men with confidence and courage. He was at his post from early morning until night when his battalion was withdrawn.

Dr. Kyle entered the service in June 1917 and was promoted to captain the following September. He has been in France since early this year.

Medical Society of Virginia.

The forty-ninth annual session of our State Society is to be held in Richmond, October 22-25, inclusive, with headquarters at the Jefferson Hotel. Owing to the large number of members who have entered the service and are already overseas, the attendance will necessarily be smaller than usual, but it is hoped that the meeting will be no less interesting and enjoyable. Dr. Ennion G. Williams, of this city, the president, and Dr. P. A. Irving, Farmville, the secretary-treasurer, as well as the councillors, have been working for the success of the meeting. Dr. Paul W. Howle, of this city, is chairman of the Committee of Arrangements. Subjects of medico-military interest will be discussed and it is hoped there will be a sufficient number of papers on the program to furnish something of interest for all who may attend.

To Physicians Of America.

Surgeon General Gorgas has called for 1,000 graduate nurses a week. To this end the Department of Nursing of the American Red Cross, Washington, D. C., makes the following statement: 25,000 graduate nurses must be in war service by January 1, in the Army Nurse Corps, in the Navy Nurse Corps, in the U. S. Public Health Service in Red Cross war nursing.

This involves withdrawal of many nurses from civilian practice and necessitates strict

economy in the use of all who remain in the communities.

You can help get these nurses for our sick and wounded men by—

Bringing this need to the attention of nurses.

Relieving nurses where possible wholly or in part from office duty.

Seeing to it that nurses are employed only in cases requiring skilled attendance.

Insisting that nurses be released as soon as need for their professional service is ended.

Seeing that your patients use hospitals instead of monopolizing the entire time of a single nurse.

Encouraging people to employ public health nurses.

Instructing women in the care of the sick.

Inducing high school and college graduates to enter the Army School of Nursing or some other recognized training school for nurses.

Encouraging nurses to go to the front involves real personal sacrifice and added work on the part of the physicians whose duty it is to maintain the health of our civilian second line defense, but the men who are fighting for their country in France need the nurses.

Physicians Asked To Enroll For Army and Navy.

The Secretary of War and the Secretary of the Navy authorize the following statement: "Orders issued by the War and Navy departments on August 8, suspending further volunteering and the receipt of candidates for officers' training camps from civil life, do not apply to the enrollment of physicians in the Medical Reserve Corps of the Army and in the reserve force of the Navy. It is the desire of both departments that the enrollment of physicians should continue as actively as before so that the needs of both services may be effectively met."

Dr. D. C. Mayes,

Of Church Road, Va., has been named as one of the board of directors of a bank which it is proposed to build at Ford, in Dinwiddie County, Virginia.

Homes For Nurses.

The American Red Cross has let contracts for the erection of nurses' recreation houses at each of the forty large base hospitals where army and navy nurses may spend their off-

duty hours. Military authorities agree that these recreational measures play an important part in keeping nurses happy and efficient. These houses are to cost about \$350,000.

Some Virginia Doctors Who Have Enjoyed Vacations.

Dr. Charles R. Robins has returned to his home in this city after a visit at Woodberry Forest.

Dr. E. LeBaron Goodwin, Ashland, spent some time in August at Atlantic City, N. J.

Dr. and Mrs. Edward McGuire, of this city, have returned home after a stay in the mountains of Virginia and at White Sulphur Springs, W. Va.

Dr. B. B. Wheeler, Clifton Forge, spent a short time in August, at Huntington, W. Va.

Dr. J. Moncure Bland and family, of Boykins, visited relatives in King and Queen County, Va., in August.

Dr. and Mrs. Otis Marshall returned to their home in Culpeper, the latter part of August, after an extended stay in Atlantic City, N. J.

Dr. and Mrs. J. Walker Walters, Lynchburg, spent a week with the former's mother, in Orange County, in August.

Dr. and Mrs. R. U. Burgess, Norfolk, Va., were members of the late summer colony at Natural Bridge.

Drs. Manfred Call and W. A. Shepherd, of this city, accompanied by their wives, have returned from an automobile and camping trip in Bath County, Virginia.

Dr. and Mrs. C. C. Jones, Staunton, Va., spent the latter part of August visiting at their old home in Highland County, Va.

Dr. Thomas D. Merrick has returned to his home in Richmond, after spending his vacation in Maryland.

Dr. and Mrs. Paul Howle and children, of this city, spent the late summer season at Mountain Lake, Va.

Dr. R. Perkins Glover, Arvon, was a visitor in this city the first of September.

Dr. R. Lester Hudgins, Farmville, spent a recent vacation at his old home in Buckingham County, taking the trip by motor.

Dr. J. N. Upshur, Richmond, last month visited his son, Col. Alfred Upshur, M. C., U. S. A., at Colonia, N. J., and also spent a short time at Atlantic City.

Dr. F. H. Beadles, Richmond, returned home the latter part of August, from a trip to Baltimore and Washington.

Dr. and Mrs. James Morrison, Lynchburg, were visitors at Natural Bridge, Va., early in August.

Dr. and Mrs. Marvin Nuckols, Richmond, spent a short time at Brunswick Inn, Waynesboro, Va., in August.

Dr. and Mrs. J. H. Dunkley, Roanoke, were registered at Blue Ridge Springs, Va., last month.

Dr. and Mrs. W. S. Beazley and children have returned to their home in this city after a motor trip through the mountains of Virginia.

Dr. and Mrs. John W. Martin and little daughter, of Roanoke Rapids, N. C., spent some time in August visiting relatives in Gordonsville, Va.

Dr. and Mrs. William Roane Aylett, Newport News, enjoyed a motor trip through the North in August.

Doctors Named As Delegates To Convention.

Commissions have been issued by the Governor to the following Virginia doctors as delegates to the twentieth annual convention of the American Hospital Association, to be held at Atlantic City, September 24 to 28: Drs. Hugh H. Trout, Roanoke; Charles R. Robins, Beverley R. Tucker, Robt. C. Bryan and A. Murat Willis, Richmond; Stephen Watts, University; Elisha Barksdale, Lynchburg; Southgate Leigh, Norfolk.

Dr. Flannagan Offered Position In Hopewell.

Dr. Roy K. Flannagan, chief health officer of this city, has been offered the position of chief health officer of Hopewell, Va. After due consideration he decided not to accept the offer.

The National Association Of Military Surgeons

Will hold its annual meeting at Camp Greenleaf, October 13-15, inclusive. Owing to the unusual interest in everything medico-military, this promises to be a most instructive meeting.

Married—

Dr. Herman Welland, of Middlebrook, Va., and Miss May Lucas, of Raphine, Va., a graduate nurse of the Memorial Hospital, Richmond, August 15. Dr. Welland has recently been in charge of Camp Greenbrier, W. Va., and when that closes, he and Mrs. Welland will spend some time at White Sulphur Springs, W. Va.

Asst. Surg. Hugh Claiborne Wolfe, U. S. N. R. F., formerly of Greensboro, N. C., and a graduate of the Medical College of Virginia, and Miss Anne Elizabeth Bagley, of South Hill, Va., August 19. Dr. Wolfe at present makes headquarters in Hampton Place, Portsmouth, Va.

Lt. John B. Bullard, M. R. C., formerly of Stedman, N. C., also a graduate of the Medical College of Virginia, and Miss Lena Shubrick Cole. At present Dr. Bullard is located in New York City.

Lt. Joseph L. McCabe, M. R. C., formerly of Elizabeth City, N. C., a graduate of the Medical College of Virginia, and Miss Edmonia Johnston Beattie, of this city, in Washington, D. C., September 4.

Dr. John D. Smith,

Of Miller School, Va., who recently underwent an operation for the amputation of a leg, at the University of Virginia Hospital, is reported as getting along as well as could be expected.

Lt. Lyndsay W. Newland,

Of Bristol, Tenn., who is connected with the 166th Ambulance Company of the Rainbow Division, was reported killed in a German air raid and his hospital demolished. However, according to a message received from Washington, by his sister, he is said to be safe and well.

Subscribe To The Fourth Liberty Loan!

A tremendous subscription to the fourth Liberty Loan, September 28-October 19, will be as distressing to the German people as a defeat for them on the battlefield, and it will mean as much; it breaks their morale; it means power to their enemies. Your subscription evidences your belief that America entered this war for a just and noble cause, that small nations have the same rights as great and powerful ones. There must and will be no failure by the people to measure up to the courage and

devotion of our men in Europe. Many of them have given up their lives; shall we at home withhold our money?

Sterilization Of The Mentally Defective And Insane.

A Michigan law, providing for the sterilization of mental defectives or insane persons maintained wholly or in part by public expense in public institutions has been declared unconstitutional by the Michigan Supreme Court, because it arbitrarily selected for sterilization those confined in institutions. The opinion shows that out of what might be termed a natural class of defective and incompetent persons the legislature selected only those already under public restraint, leaving immune from its operation all others of like kind to whom the reason for the legislative remedy is normally and equally, at least, applicable. For this reason the law is said to come under the constitutional prohibition against class legislation. The court did not pass upon the constitutionality of the principle of sterilization of defective and insane persons, as the point just considered was the only one raised in the proceeding.

Stenographers And Typewriters Help Win The War.

You are urged, as a patriotic duty, to enter the Government service in Washington, D. C., for important war work as stenographers and typewriters. Women, especially, may thus aid in the nation's great effort. Men also are needed.

Those who have not the required training are encouraged to undergo instruction at once. Tests are given in 550 cities every Tuesday.

The Government maintains a list of available rooms in private houses in Washington and is erecting residence halls to accommodate thousands. The usual charge for rooming accommodations and the two principal meals of the day is \$40.00 a month, but to obtain this rate, two persons must ordinarily occupy one room.

Full information and application blanks may be obtained from the Secretary of the Local Board of Civil Service Examiners at the post office or customhouse in any important city, or from John A. McIlhenny, President, U. S. Civil Service Commission, Washington, D. C.

Dr. William C. Fowler

Has been appointed Health Officer of the District of Columbia, succeeding Dr. Wm. C. Woodward, who has accepted a similar position in Boston.

Venereal Disease Control Upheld.

A telegram, dated August 1, 1918, from Louisville, Ky., states that the legality of a venereal disease ordinance, based on the suggested regulations approved by the Surgeons General of the Army, Navy and Public Health Service, has been upheld by a local court of common pleas, with five judges sitting. The proceedings was habeas corpus seeking the release of a woman held in quarantine for the treatment of venereal disease.

Surgeon Hugh S. Cumming,

Of the U. S. Public Health Service, formerly stationed at the Hygienic Laboratory, Washington, has been serving in the Navy for little more than a year, having been detailed for the war to the office of the Surgeon General of the Navy as adviser in sanitation, etc.

Dr. John P. Clark

Has been appointed medical inspector of the public schools of Lynchburg, Va., succeeding Dr. W. Clyde Adkerson, who has entered the medical reserve corps.

To Care For Babies.

The State Board of Health of North Carolina has appointed Mrs. Kate Brewer Vaughn head of a children's bureau, to be established within the next few weeks, to deal primarily with the enormous infant mortality in that State. It is estimated that there are about 72,000 births in North Carolina each year and that on an average, 10,000 children die in infancy. Mrs. Vaughan has for a number of years been engaged in home economics and dietetic work in many of the Southern states.

Large Number Of Drug Addicts In Tennessee.

A government expert, who has recently completed a survey in Tennessee, estimates that there are 22,000 drug addicts in that state alone, and says that each spends not less than \$1 per day for drugs, making a total expenditure for the year of \$8,000,000. He states that

15,000 to 20,000 ounces of morphine are sold in Memphis annually, besides a vast amount of heroin, opium, cocaine and caffeine. Federal statutes are not sufficient to cope with the situation, he states, and urges drastic anti-narcotic laws by the Tennessee General Assembly.

Additions To Azalea, N. C., Hospital.

The War Department has authorized additions to the tuberculosis hospital at Azalea, N. C., at once, the cost of which will be \$389,100. There will be built twelve open-air wards for enlisted men, two officers' wards, three infirmary buildings, two buildings to accommodate fifty nurses, officers' quarters and two storehouses.

Dr. J. Meek Wolfe

Has been appointed first lieutenant in the medical corps, Company C, Jo Lane Stern Battalion, of the Roanoke, Va., state militia.

Applicants For Enrollment In The Medical Reserve Corps

May be examined at Grace Hospital, this city, every Tuesday and Friday, at 3 P. M. Doctors who contemplate attending the coming meeting of the Medical Society of Virginia in this city, October 22-25, and cannot conveniently get to Richmond or some other board before then, may be examined at that time. All who contemplate enrollment should write in advance for their papers to the President of the Board, Major Robert C. Bryan, M. R. C., Grace Hospital, this city, as it will facilitate and expedite the examination.

The American Public Health Association

Will hold its next annual meeting in Chicago, October 14-17, under the presidency of Dr. Chas. J. Hastings, of Toronto.

Dr. John A. Williams,

Greensboro, N. C., was elected president of the Eighth District N. C. Medical Society, at its semi-annual meeting held in North Wilkesboro.

American Prisoners' Letters Dictated By The Germans.

Col. Churchill, chief of the military intelligence branch of the General Staff, directs the

attention of American editors to recently published letters from American prisoners of war in German camps in which the prisoners speak of the excellence of the food and general treatment of the prisoners.

An officer of the military intelligence branch, who spent two years of the war in Germany, reports that there are certain rules laid down for all prisoners in letter writing. The price they pay for the transmission of their letters is that they must state that they are well treated, also that the food is good and that they are contented. The letters of the prisoners are carefully censored at the camp, and any statements made contrary to the rules laid down for letter writing simply means destruction of the letter.

It is therefore concluded that any information coming from American prisoners in Germany is absolutely unreliable and should not be published in American newspapers or magazines, as in any way authentic.

It is urged that all editors give the above very earnest consideration in handling prisoners' letters that may reach them in any way whatever.

Dr. Jas. Torrance Rugh

Has been elected professor of orthopedic surgery at Jefferson Medical College, Philadelphia.

Dr. C. R. Dufour,

Washington, D. C., well known in this State, has been appointed emeritus professor of diseases of the eye and ear in Georgetown University Medical School.

Dr. Rudolph Teusler,

Formerly of this city, but for some time in charge of St. Luke's Hospital, Tokio, Japan, will head the American Red Cross unit which will go with American troops on their expedition into Siberia.

Dr. George E. Wiley

Was elected city physician of Bristol, Va., at a recent meeting of the City Council.

Harrisonburg Hospital To Be Enlarged.

The Rockingham Memorial Hospital, Harrisonburg, Va., proposes to build a large addi-

tion to its nurses' home. The cost of this addition will be at least \$15,000.

Maj. Henry P. Carter, M. C., U. S. A.,

Has been promoted to the rank of lieutenant-colonel, and assigned as a divisional surgeon with a division about ready to go overseas. He is a native of Chatham, Va., and has been in the regular army about ten years. He was for some time stationed at Ancon, Canal Zone.

Delegates To Conference On Rehabilitation Of Wounded.

Governor Davis has appointed the following doctors to represent this State at the conference of rehabilitation of the wounded, to be held in Philadelphia, September 20 and 21: Drs. Beverley R. Tucker, Richmond; E. E. Feild, Norfolk; William F. Drewry, Petersburg; H. M. DeJarnette, Fredericksburg; William C. Orr, Leesburg. The conference will be conducted under the auspices of the American Academy of Political and Social Science and will be for the purpose of considering plans for the care of men physically disabled by war service.

Dr. McGuire Promoted.

The many friends of Dr. Stuart McGuire, of this city, will be glad to learn of his promotion to the rank of lieutenant-colonel. With the rank of major at the head of Base Hospital 45, Dr. McGuire went overseas in July.

Typhoid Epidemic Among German Prisoners.

To September 6, there had been reported 18 deaths in the 177 cases of typhoid fever occurring among German prisoners at the internment camp at Hot Springs, N. C. The patients were taken to a hospital at Biltmore, and the remaining prisoners were transferred to the internment camp at Ft. Oglethorpe, Ga. The first report of the epidemic was received at the Surgeon General's office, Washington, August 1.

Medical Inspectors of Schools.

Dr. N. Thos. Ennett has been reappointed director of the medical inspection department of the public schools of this city, and Drs. J. Fulmer Bright and J. G. Trant have been ap-

pointed assistant directors. Dr. W. H. Higgins has been appointed psychological examiner.

Chewing Gum Effective In Allaying Thirst.

Orders have just been placed by the Quartermaster Corps for 2,300,000 packages of chewing gum for the Army. It has been found that on long marches and where the troops are unable to get sufficient water chewing gum is very effective in relieving thirst.

Recently the commanding officer of a regiment of Field Artillery, when embarking for overseas service, stated that 250 pounds of chewing gum would save hundreds of gallons of water when most needed.

Hospital Constructed As If By Magic.

Official announcement is made of the fact that recently a 40-bed hospital ward was erected and ready for occupancy in 10 hours and 38 minutes. The building is a one-story frame structure, with a convalescing porch, and has in addition to the ward a diet kitchen, surgical dressing room, linen room, bath, and ward officers' toilets. It is 156 feet long by 24 feet wide, and has a porch 10½ feet wide which runs the length of one side of the building. The finished building was fully wired, lights ready to be switched on, water was running in the pipes, radiators had been set and hand extinguishers were hanging on the wall when the building was reported finished. Promptly at 7 A. M., 130 laborers under two foremen began to dig the post-holes. In accomplishment of the work, 566 men were employed. When work was commenced, much of the lumber for the building was on the spot but none had been cut to the right size, and all trimming was done while the work was in progress.

Brought Out By The Draft.

The Bulletin of the Norfolk Va., Health Department states some of the things that the war has shown in regard to the health and fitness of our young men. First, that our boys are patriotic, for of the first million and a quarter called, about 750,000 claimed no exemption on any ground, although practically

50 per cent of them were married. Of the first 2,500,000 examined, 730,000 were found to have some physical defect. Of these, about 22 per cent were rejected on account of defective eyesight, 10 per cent owing to bad teeth. Hernias and ear troubles ranked next as a cause for physical disability. 30,000 of the first draft could not read or write at all. The compulsory educational and child labor laws will probably take care of the illiteracy in the future and, by proper medical supervision during school days, a majority of the other defects should be located and corrected.

For Sale—1 Spencer microscope; white enameled instrument cabinet and office scales; operating table; miscellaneous lot of instruments; hand centrifuge; Valentine irrigator; double wash-basin stand and irrigator combined; small enameled table and specialist's chairs and a number of medical books in good condition. Special price will be made for things if sold in lot, or articles will be sold separately if desired. Communicate with Mrs. Lucien Lofton, 200 East Franklin Street, Richmond, Va. (Adv.)

Obituary Record.

Dr. Harvey E. McConnell,

Considered one of the authorities in this country on pellagra, died August 18, at his home in Chester, S. C., leukemia being the cause of his death. He was fifty-two years of age and a graduate of the University of Maryland, School of Medicine, Baltimore, in 1890.

Dr. Chapman W. Jones,

Formerly a successful practitioner at Red House, Va., died in Greensboro, N. C., August 23, after a long illness with diabetes. Owing to bad health, he gave up his practice at Red House about eight years ago and moved to Appomattox, Va., where he had since made his home. He received his medical education at the College of Physicians and Surgeons, Baltimore, from which he graduated in 1869. He is survived by three sisters and a brother, Dr. H. E. Jones, of Roanoke, Va.

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AMBULATORY TREATMENT OF GASTRIC AND DUODENAL ULCER.

By ELMER B. FREEMAN, M. D., Baltimore, Md.

Before discussing the ambulatory treatment of gastric and duodenal ulcer we will give a brief summary of the clinical history, stomach analysis, stool examinations and X-ray findings in the various cases treated. These cases were all carefully studied and treatment administered in the Digestive Clinic of the Johns Hopkins Hospital Dispensary and none with marked gastric deformity or callous ulcer with pyloric obstruction were included, as such cases were promptly referred to the Surgical Department. This study embraces 169 cases, 96 of which were duodenal ulcer and 73 that of gastric ulcer. This corresponds with the findings of others, namely, that duodenal ulcer occurs more frequently than gastric ulcer.

As indicated above, we will first give a brief summary of the *Clinical History*, considering the following points:

Age.—The youngest patient was 17 years of age, the oldest was 68, the average age being 34.

Sex.—One hundred and thirty-four of these cases were men and 35 were women. This again bears out the findings of others relative to the marked frequency of ulcer in men and the comparative infrequency among women.

Race.—Of the 169 cases treated 162 were white and the remaining 7 colored. It is the impression of the Clinic that duodenal and gastric ulcer are very infrequent among the colored race, but we have no way of explaining this apparent fact.

Habits.—The excessive use of alcohol was reported in 25 cases; excessive use of tobacco in 7; excessive use of coffee in 3; and negative findings in 134 cases.

Past History.—Regarding past histories, we found the following: 7 cases of appendicitis; 3 cases of gastric ulcer; 3 cases of diphtheria; 11 cases of scarlet fever; 10 cases of malaria; 3 cases of jaundice; 23 cases of typhoid; 20 cases of venereal disease in all of which there was a negative Wassermann, as the cases with gastric symptoms with positive Wassermann were treated as gastric lues; and 89 cases with negative past history. It is interesting to note in this connection that a past history of typhoid fever was found in 23 cases, showing that possibly typhoid infection may be a predisposing factor in the development of gastric and duodenal ulcer; that only 7 cases had a past history of appendicitis, but this was not confirmed by our examinations; and that only 3 gave a past history of gastric ulcer.

Teeth.—Bad teeth and pyorrhea cases were very difficult to classify as the average patient that comes into the Dispensary for treatment is one that, as a rule, is very indifferent as to the care of the teeth, but a large majority did have bad teeth and pyorrhea. With this type of patient it would be very difficult to say to what extent the condition of the teeth was responsible for the digestive disturbance. However, before treating this disturbance we had the teeth put in good condition.

Present Illness.—*Pain*.—Pain occurred in all of the cases and was of the ulcer type. In each case it occurred at a regular time after every meal and it was further characterized in the duodenal cases as being relieved by the

taking of food, and in both gastric and duodenal cases by the administration of an alkali.

Vomiting.—Vomiting occurred in 74 cases, in the remaining 95 it was not present; which corresponds very closely with the number of gastric ulcers studied.

Frequently associated with the pain and the vomiting were acid eructations, burning in the stomach, fullness after eating, etc. In most of the cases in the beginning of the disease the symptoms were characterized by periodicity.

Bowel Condition.—One hundred and nine suffered with constipation; 55 had daily evacuations; and 5 suffered with diarrhea.

Analysis of Stomach Contents.—The fasting stomach was studied 12 hours after a rice retention meal had been given. We found 34 cases with free hydrochloric acid above 40° and with hyper-secretion; 76 cases with free hydrochloric acid below 40° and not under 20°; 10 cases with free hydrochloric acid below 20°; and 12 cases on which free hydrochloric acid was absent.

Microscopic study of the fasting stomach showed starch granules in 24 cases. Hasuman test for the presence of a gross retention of rice was negative in all of these cases as those showing a gross retention of the 12 hour meal were referred to the Surgical Service.

From these studies of the fasting stomach in this series of cases one is impressed with the tendency of the stomach to continually secrete acid, for, out of 169 cases, 110 had free hydrochloric acid above 20°. The cases with the free hydrochloric acid above 40° and more than 20 c.c. in the fasting stomach were cases which showed the microscopic retention of the rice meal.

The microscopic retention is most likely accounted for by the pyloro-spasm which is so frequently found in the cases in which there is definite increase in the free hydrochloric acid. In the Clinic we have always paid a great deal of attention to the fasting stomach findings and especially to hyper-secretion and to rice retention; hyper-secretion with microscopic rice retention being looked upon as most likely a spasmodic condition, and hyper-secretion with the gross retention of the rice meal due to organic obstruction. In the test-break-fast studies we found free hydrochloric acid above 40° in 62 cases; free hydrochloric acid below 40° and above 20° in 58 cases; free hy-

drochloric acid below 20° in 21 cases; and no cases in which free hydrochloric acid was absent.

Occult Blood.—In regard to stool examination, we found occult blood present in 100 and absent in 69 cases (Benzidine test being used.) While the presence of occult blood is very valuable in the diagnosis of ulcer, its absence does not disprove the fact that it is present, as ulcer may be present when repeated examinations of the stool do not show occult blood.

X-Ray Studies.—In our X-ray studies of these cases we use the fluoroscope almost exclusively. Previous to the examination patients were given two doses of barium sulphate or bismuth sub-carbonate; the first dose 18 hours and the second immediately before the study was made. The two doses were given in this way so as to give a composite picture of the stomach, cecum and colon around to, or beyond the splenic flexure. Dr. Thomas R. Brown prefers studying the cases in this way because he believes by this method it is very much easier to diagnose adhesions in the right lower quadrant, right upper quadrant or in the right side of the abdomen which may give symptoms similar to those of ulcer. In the fluoroscopic study in the upright position if there are adhesions in the right lower quadrant you usually see a very typical picture with the fluoroscope. It is one in which the stomach is pulled downward and to the right with more or less definite kinking of the hepatic flexure, and the first part of the transverse colon back, against cecum. However, we do have a few cases in which the position of the stomach is not disturbed but there is definite kinking of the hepatic flexure and first portion of the transverse colon back on cecum. Either picture definitely indicates adhesions in right lower quadrant, which usually have their origin in the appendix. In the cases with adhesions in the right upper quadrant there is also seen a definite fluoroscopic picture, —the stomach is to the right and the pylorus and duodenum are tucked up under the gall bladder while the hepatic flexure, instead of being prolapsed as in the appendix cases, is pulled over and upward towards the gall bladder. In the cases with adhesions in the right side of the abdomen you have a picture which in some respects resembles both upper and lower right quadrant

trouble. In the series of cases studied we did not include those which when fluoroscoped showed any of these findings. We studied only the cases in which the stomach was found to be in good position and depended mostly upon motility and to a less extent upon small filling defects especially in the duodenal cap which persisted after the patient had been given large doses of belladonna. All of these cases studied showed a spastic, irritable, hyper-peristaltic and hyper-motile stomach.

Treatment.—In a group of cases like the one under consideration it becomes very necessary to outline a course of treatment which will allow the patients to continue their daily avocations. For pecuniary reasons it is quite impossible for these patients to follow out a systematic rest cure in a hospital, so in the Clinic we depend upon the following course of treatment as being one the patient may take at home, and from the results obtained we feel this treatment is justified. The treatment:

First,—Focal Infections.—We removed, when possible, all focal infections, especially those about the teeth and sinuses. (As stated before, we excluded as far as possible all conditions within the abdomen which might be associated with or produce symptoms similar to ulcer.)

Second,—Habits.—We stopped the use of alcoholic stimulants, tobacco, tea and coffee.

Third,—Diet.—In this series we gave a mixed diet of carbohydrate, protein and fats, but we gave the preference to carbohydrate food as carbohydrates leave the stomach more quickly than protein and fats, and by leaving the stomach more quickly make less demand upon the secretory and motor power of the stomach. The opening and closing of the pylorus is controlled by the presence of free acid in the stomach and in the first part of the duodenum. Free acid in the stomach contents coming in contact with the pylorus causes the pylorus to open and the presence of free acid in the first portion of the duodenum causes the pylorus to close and the pylorus remains closed until the contents of the duodenum are made alkaline; thus, the duodenal control of the pylorus is the stronger of the two. Carbohydrate foods by not combining with the acid in the stomach allow free acid to quickly appear in the stomach contents which, coming in contact with the pylorus, opens the pylorus and permits the food to pass on into the duodenum.

Due to the fact that carbohydrate food leaves the stomach quickly; that it gives the stomach less mechanical work to do; that it makes no demand upon the acid secretions of the stomach; leaves it quite apparent that the diet that makes the smallest demand on the stomach is the one that should give the best results in the treatment of these cases, but in the ambulatory treatment we must always remember that it is always necessary to allow a diet that will retain a sufficient amount of protein and fat to maintain the body in a state of good nutrition, for if nutrition is not maintained the healing of the ulcer will be very much delayed and sometimes impossible. When possible the following diet was given for the first two weeks:

- 7 A. M.—6 ounces of milk.
- 9 A. M.—Egg albumen.
- 11 A. M.—Cup of bouillon with one egg.
- 1 P. M.—Rice cooked in milk.
- 3 P. M.—Egg albumen.
- 5 P. M.—6 ounces of milk.
- 7 P. M.—Egg albumen.
- 9 P. M.—6 ounces of milk.

No food was given from 9 P. M. until 7. A. M.

However, most of these patients were unable to take nourishment every two hours and from the beginning of the treatment were put on soft food three times a day with a glass of milk or some other liquid food between meals and at bedtime. The following foods were allowed: Well cooked cereals, especially cream of wheat and oatmeal, mashed potato, baked potato, macaroni prepared without cheese, boiled rice, milk toast, soft boiled eggs and stewed fruits. After the patients had been under treatment for two months the light forms of meat, such as chicken, fish and lamb, were allowed once a day, then the diet was gradually increased until at the end of three months the patients were taking thoroughly cooked vegetables such as spinach, cauliflower, string beans, etc. This change to liquid and soft diet is so great for this type of patient who has been accustomed to eating very coarse food rapidly and at irregular hours that we believe we obtain almost as good results in the ambulatory treatment of these cases as we do with the people in the better walks of life who take the regular rest cure treatment in a hospital.

Fourth,—Hot Applications.—Before retiring these patients were all directed to use hot moist applications to the abdomen for 45 min-

utes. This added materially to their comfort by lessening gastro-spasm and pain.

Fifth,—Medicinal.—These patients were given tincture of belladonna before meals and an alkali after meals. We always began the treatment with three drops of belladonna three times a day and increased one drop per dose per day until the physiological tolerance of the drug was reached, frequently giving as much as 25 drops or more three times a day. It has been our experience that ulcer patients tolerate very large doses of belladonna and that good results from the use of the drug are not obtained unless it is used in large doses. By beginning with small doses we have avoided the unpleasant toxic symptoms of the drug that occasionally occur. We believe that belladonna indirectly aids materially in the healing of the ulcer by lessening gastric secretion, pyloro-spasm or gastro-spasm and by the relief of pain.

These patients were also given moderate doses of 20 to 30 grains of bismuth subcarbonate and calcined magnesia one-half an hour after meals. We used magnesia as a rule instead of bicarbonate of soda because it has a laxative effect upon the bowels, has a greater combined power for free acid and does not produce carbon dioxide in the stomach, which may produce atony.

Conclusion.—*First.*—In a large number of cases of gastric and duodenal ulcer we feel that the ambulatory treatment is justified.

Second.—That in the dietetic management of these cases the preference should be given to carbohydrate food.

Third.—Good results are obtained only with those patients who can tolerate belladonna in very large doses.

412 Cathedral Street.

SOME ESSENTIAL FACTS CONCERNING INFECTIOUS DISEASES OF CHILDREN.*

By DANDRIDGE P. WEST, M. D., Norfolk, Va.

In presenting the subject of this paper it is not my purpose to offer any speculative data for your consideration, nor suggest anything, perhaps, that may be especially new to you, but I merely wish to call your serious attention to a few facts concerning contagion which should be in the mind of every physician when he goes to attend a child taken acutely ill.

I may add, also, that when I speak of contagious diseases I refer especially to those of more serious nature, as for instance, mumps, measles, scarlet fever and diphtheria, while as a matter of fact, my statements might well refer to practically all the contagious diseases. Please observe:

First. That with practically every one of the contagious diseases the *onset* may be identically the same; that is, during the first 12 or 24 hours the symptom-complex of each disease may be absolutely identical.

Second. During the immediate onset of practically all the contagious diseases there is rarely a single symptom on which a physician can rely to make an accurate or positive diagnosis.

Third. That the most contagious period of practically all contagion is during these early hours of onset.

Fourth. That the same symptom-complex incident to the onset of contagion may, and fortunately does, usher in the more common disorders of childhood.

Therefore, any physician called to the bedside of a child taken acutely ill with high fever, nausea, vomiting, headache, and possibly convulsions, has no right to definitely commit himself towards making an absolute diagnosis, especially where there are other children concerned. For a physician to make a guess diagnosis of acute intestinal disorder may satisfy his vanity as well as the mind of an anxious parent, but for him to return 24 or 36 hours later only to find that he has exposed a whole household, and perhaps a whole neighborhood, to an acute infectious disease is, to say the least, embarrassing.

What, then, should be the attitude of the physician in such a case?

If, after a thorough examination, there is no clinical evidence on which a positive diagnosis can be made, and there rarely is,—*isolate*.

After administering to the immediate needs of the patient, such, perhaps, as giving a cathartic, dieting, and making the patient comfortable, one can then with a clear conscience leave the house and wait for further developments.

It is understood, of course, that where one is suspicious of diphtheria, typhoid or meningitis, for instance, a throat culture, specimen of blood, or a tube of spinal fluid should be taken at this time. But for a twentieth century physician to make a guess diagnosis in the

*Read before the Southside Virginia Medical Association, at Suffolk, Va., June 18, 1918.

face of obscure conditions and thus expose others to a similar fate, is inexcusable.

In spite of the great amount of research that has been done, and is still going on, there is after all very little accomplished with the eruptive diseases in the way of etiology and specific treatment. Epidemics still occur and mortality continues to run high. Moreover, the widespread opinion among the laity, and unfortunately among some of the profession as well, that every child *must* sooner or later develop the usual diseases of childhood, still exists to an alarming degree.

Why should parents believe that their children must at some time develop contagion? Have they any logical reasons for such a belief?

During the early centuries before the time of isolation and quarantine there were apparently some reasons why children should go through these illnesses, for it was only through the persistency of contagion that a certain amount of immunity was kept up. Infants, as is well known, enjoy a certain amount of immunity up until a certain age against contagious diseases. Take, for example, that highly contagious disease, measles. Wagener, studying a series of epidemics, found that no child escaped the disease who was exposed for the first time after 5 months of age. But *none* under 4 months contracted the disease and only one of 5 months. Again, you all may be familiar with the classic outbreak of measles that occurred many years ago in the Faroe Islands, or with a later epidemic in one of the South Sea Islands, in which nearly every inhabitant contracted the disease and among whom the mortality was especially high. One-fourth of the inhabitants in the latter instance died. Reason for the great susceptibility and high mortality was found in the fact that not a single case of measles had appeared on the island for several generations.

So that, it would appear, parents at one time did have at least some reason for wanting their children to go through with these diseases.

On the other hand, in the light of our present knowledge, with our fairly accurate statistics, it is hard to believe that any parent could accept lightly any contagion among his or her children when serious sequelae and high mortality are matters of record.

Why, then, should our morbidity and mor-

tality continue to run high among contagion? And what can we do as physicians, specialists, as well as general men, to control the situation?

Our morbidity in the first place continues to run high mainly on account of ignorance that is so prevalent among the laity. A broad campaign of public health education is needed. So long as parents continue to believe that contagious diseases are a necessity to the future health and growth of their children, just so long will contagion spread uncontrolled among us. Think of whooping-cough, for instance, which accounts for more deaths in infants under 1 year of age than all the other contagious diseases. And yet their is still a very general idea that whooping-cough is a mild infection.

Our mortality among contagion is of course caused mainly through complications. It is rare indeed to find one of the infectious diseases so virulent in itself as to cause death. While, again, it is a question whether all contagions, whether mild or severe clinically, do not cause enough changes in the animal economy as to be considered a complication. For instance, there are many eminent pathologists who claim that there is never any scarlet fever without more, or less kidney involvement, whether the urinalysis shows evidences or not, and that a large percentage of chronic Brights in adults may be traced to an attack of scarlet during childhood.

The loss of infant life is so spread out over the entire country that the individual physician does not appreciate, perhaps, his own responsibility. By studying figures, however, we are confronted with the lamentable fact that mortality among contagious diseases, especially in those children under one and two years of age, is very high.

According to one authority on whooping-cough, 80 per cent of all cases, and 97 per cent of all deaths are in children under 5 years. 50 per cent of patients are under two years and 50 per cent of deaths are in children under 1 year. The fatality of measles complicated by broncho-pneumonia in a recent epidemic in New York was 58 per cent. The death rate from scarlet fever in the registration area in 1915 was 3.6 per 100,000 the lowest since 1900. As for diphtheria, while the general use of antitoxin has unquestionably saved a great number of lives, the disease still

causes more deaths in children of all ages than whooping-cough, measles, or scarlet fever, the annual number of deaths being 17,000.

We come, then, finally to the question of control. Josephine Baker tells us that in New York City the chief reliance for the prevention of the spread of contagion is placed on the system of school medical inspection. Children are excluded on suspicion; pupils in rooms where contagious diseases have occurred are inspected daily. All absentees of more than three days duration are visited at home, while the wisdom of keeping children in school in the presence of communicable diseases is emphasized. This latter fact is quite a change over the trend of opinion two years ago, when we believed that schools should be closed in such events. The above rules, however, are obviously directed to communities where school inspections can be carried out.

For the smaller cities and communities I should say, first, that isolation, especially during the onset, is of paramount importance. Do not be afraid to be non-committal in cases of acute onset with obscure symptoms, but first be sure that your case is well isolated and others in the house are protected; second, that education or enlightenment of parents by the physicians should never be neglected, as without the co-operation of the public not much can be accomplished, remembering of course that these diseases are spread through contact and not by clothes, third persons, etc., as a rule; third, co-operation of physicians with their respective boards of health, as it is equally important for physicians to work in harmony with health authorities as it is for parents to work in co-operation with their physicians.

There is a great movement under way to save 100,000 babies this year. You are all more or less familiar with it, no doubt. But while this movement is directed more through child's welfare associations to reach babies who are not acutely ill, a vast number can and should be saved in those who are suffering from such diseases as the infectious diseases of childhood.

Let us, therefore, be more on the job in our handling and treating of contagion that we may do our bit towards lowering the morbidity and mortality of these diseases.

Be sure that you are familiar with the more likely complications of each disease, and be on a close look-out for them; be careful not to

underestimate the seriousness of these diseases, especially to the parents; insist on all details of your treatment being carried out, especially as it concerns hygiene and general care, isolation and quarantine.

503 *Taylor Building*.

STONE IN THE KIDNEY—REPORT OF CASES.*

By J. THOMAS KELLEY, Jr., Washington, D. C.

Case 1.—Mr. J., age 49 years. When eight years of age fell from a great height, injuring his back which required him to remain in bed for some months. About a year afterwards he began to have bloody urine, which was quite red with blood at each attack, which would come on several times a year. There was never any pain in the region of either kidney. His health has been good. He is a lawyer by profession and rather intelligent. He gives no history of having his urine examined microscopically, so there is no way to tell if blood is constant in the urine, but after excessive exercise, especially horseback riding, blood would appear in the urine. He had become so accustomed to this that not having any pain, he did not seek medical advice. About one year ago he consulted me because his urine was cloudy; this urine on examination was loaded with pus. On physical examination there was a slight tenderness over the left kidney although he had never been conscious of any pain. The tentative diagnosis was renal calculus. He was loathe to have such diagnosis of calculus confirmed for he had a horror of operation; however, he went to Dr. Pfender after a time for X-ray, with the result that the diagnosis was confirmed.

He entered the hospital on February 19th and was operated upon the next day. The usual incision was made over the kidney and that organ exposed. The kidney felt as though it was one huge stone for everywhere projecting through the cortex immediately beneath the capsule could be felt hard points of stone. The kidney was very easy to deliver and was cut through from pole to pole, and the kidney tissue was with difficulty shelled off from the irregular surface of the calculus. I thought at one time the kidney was past usefulness,

*Read before the Medical and Surgical Society of the District of Columbia, May 2, 1918.

but after trimming off torn edges and irregularities the halves were sewed together, leaving quite a small but good-shaped kidney. The urinary fistula, where the drainage tube was persisted for six or seven weeks, but eventually closed. The pus in his urine cleared up and he is apparently perfectly well.

Case 2.—Mrs. C., age 30 years. Married and has one child. Came to me first on August 25, 1917, suffering with pains in the abdomen; she was very nervous and unable to sleep. These symptoms she claimed were brought about by an accident which she had on the railroad. I found nothing abnormal except a retroverted uterus. She went to the hospital and was operated upon for the retroverted uterus on September 12, 1917. She seemed very much better of her nervous symptoms and I did not see her again until March 19, 1918, when she sent for me because of severe pain in the left dorsal region. I secured a specimen of urine and found it to contain numerous pus cells and a few red cells. I sent her to Dr. Pfender for X-ray and his report showed stones in the kidney and its pelvis.

She entered the hospital again on April 2, 1918, and was operated upon the next morning. The pelvic stone was removed through an incision in the pelvis, and those in the substance of the kidney through an incision made in the long axis of the kidney. The wound healed readily, leaving no sinus.

The interest in these two cases is that both cases occurred after an injury. One of the causes of kidney stones is some injury whereby a mild pyelitis is formed or a small blood clot, creating a focus for the deposit of salts. The question that interests me is, in testifying for this latter patient, would I be justified in saying that kidney stones were a direct cause of the accident.

1312 Fifteenth Street, N. W.

DIABETES IN A NINE YEAR OLD BOY.

By A. B. GRUBB, M. D., Cripple Creek, Va.

This boy was seen for the first time about thirty days ago—during the early part of June, 1918. He had lost considerable flesh during the past year, and had been passing large quantities of urine. During the same period he had also been wetting the bed constantly and his mother noticed that he drank quantities of water.

Examination of his urine showed sugar in large amounts. I thereupon advised the mother of his condition. She informed me that the boy's father always brought home a pocketful of candy and, while all the children ate it, the sick child seemed to get more than his share.

I advised her to give him no more candy nor any of the regular sweets, but still allow him some starches, such as bread and potatoes, but told her not to give him as great a quantity as before.

In two weeks there was improvement and he became more playful and gained some flesh, but there was still some sugar in his urine. After two more weeks, the sugar has disappeared and he plays freely with the children, has stopped his bed-wetting, and does not have so much thirst. In fact, he looks like a normal child now, and is gaining weight.

The question is, is this temporary glycosuria or a permanent diabetes? At first it looked like a real diabetes, and as diabetes is rapidly fatal in children, I gave the mother a gloomy prognosis.

The Practical Medicine Series reports the recovery of four mild cases of diabetes in children, and thus partly exploded the idea that it is always rapidly fatal.

This case is surely mild diabetes, and while he cannot handle sugar in much quantity, still he can take a great deal more than a severe diabetic can, as he still eats bread and potatoes and rice.

The glucose test has not been made yet. This test is made by giving an adult three and one-half ounces of pure glucose, and if sugar is found three or four hours later, we know that a pathological condition exists.

The future of this child will be of much interest, but a happy outcome is to be hoped for.

Practical Points in Current Medicine

Public Health

Spanish Influenza.

An acute infectious disease (epidemic influenza), has prevailed in Europe this year similar in many respects to the disease which prevailed in pandemic form in the winter of 1889-90. It seems probable that in 1918, as in 1889-90, the earliest appearance was in eastern

Europe. By April cases were occurring on the western front. In Spain, according to reports, 30 per cent of the population were attacked in May. The 1889 epidemic, starting in northern Europe, also fell heavily on Spain; the present ruler, then 3 years old, being one of the first attacked in Madrid. The King of Spain is said also to have been attacked in the present epidemic. The epidemic of 1918 was at its height in Germany in June and July. It has appeared in practically every section of Europe. In England the epidemic prevailed in May, June, and July.

Outbreaks have been reported from various sections of the United States, but the spread has been by no means so rapid as in 1889, when the disease occurred in America almost simultaneously with its appearance in western Europe.

In the absence of a clean-cut symptomatology, distinct from that of other diseases, and of any criterion, such as a proved causative organism, demonstrable in the tissues of the patient or his discharges, it is difficult to make diagnosis in individual cases apart from an intense prevalence of the disease. It is likewise impossible for us to assert or deny the unity of this epidemic with that of 1889-90. The marked difference in season is notable. In 1889 the first outbreak occurred in St. Petersburg during October; in Berlin and Paris, during November; in Brussels, Copenhagen, London, Vienna, Rome, Madrid, Boston, New York and Philadelphia, during December, persisting in each place for one or two months. In 1918 the heavy incidence has been in summer, but the duration in any one focus, the general character of the disease, its tendency to spread along routes of travel, and the enormously high case incidence have been similar in the two pandemics.

The identity of the present outbreak with outbreaks in other years is even more uncertain.

Hippocrates and Livius refer to an epidemic in 412 B. C., which is regarded by many to have been influenza. Since ancient times, epidemics somewhat similar to the present outbreak have been recorded in the twelfth and thirteenth centuries, 4 in the fourteenth, 5 in the fifteenth, 8 in the sixteenth, including the pandemics of 1510 and 1580, 8 in the seventeenth, 20 in the eighteenth, and 14 in the nineteenth century, including the pandemics of 1831, 1833, 1837, 1847-48, and 1889-90. After the pandemic of 1847-48, there appears to have

been a considerable pause before the pandemic of 1889-90 appeared "like a thunder cloud from the east," as Beck puts it. Following this pandemic, high incidence of epidemic influenza was reported during the winters of 1891 to 1894, 1907-8, and 1915-16.

The symptoms in the present pandemic have been an acute onset, often very sudden, with bodily weakness and pains in the head, eyes, back and elsewhere in the body. Vomiting may be a symptom of onset and dizziness is frequent. Chilly sensations are usual, and the temperature is from 100° to 104°, the pulse remaining comparatively low. Sweating is not infrequent. The appetite is lost, and prostration is marked. Constipation is the rule. Drowsiness and photophobia are common. The conjunctivæ are reddened, and the mucous membrane of the nose, throat, and bronchi often give evidence of inflammation. The general symptoms, however, predominate over the local. Cervical and general lymphadenitis and nystagmus have been reported to be very frequent by certain observers. Characteristically, there is no leucocytosis during the height of the fever, so that a high white count during the first 60 hours is indicative of another disease or of complication. The fever usually lasts from three to five days; but relapses are not uncommon, and complications, particularly pulmonary, are to be feared. The death rate is usually given as extremely low; but in the latter periods of an outbreak an increased number of deaths, presumably due to complications, has been reported in Spain and in the United States. Besides bronchitis and pneumonia, inflammation of the middle ear and cardiac weakness may follow the disease.

Epidemic influenza may vary in type in different places; thus diarrhea was said to be frequent in Spain. It is to be supposed that in some places aberrant types may be found, but, in the absence of a definite criterion for diagnosis, it is impossible to affirm this with certainty.

In its onset, epidemic influenza may simulate almost any of the acute infectious diseases, but in the civil population it must be differentiated chiefly from an ordinary coryza or bronchitis, from cerebrospinal fever, and from such conditions as the glandular fever of children. In the usual coryza or bronchitis the general symptoms are by no means so severe or so sudden in appearance as in epidemic influenza, and the spread of these infections through a com-

munity is not so complete. Even in the absence of an outbreak of epidemic meningitis, the symptoms mentioned as typical of influenza, if combined with a stiff neck or Kernig's sign, would justify a lumbar puncture. A negative result with the lumbar puncture or the absence of a leucocytosis would indicate that meningitis was not present. Glandular fever is limited to children; other ephemeral fevers have not occurred in widespread fashion. The short course of the fever (always less than seven days) in uncomplicated influenza, is thus an aid in diagnosis.

The incubation period is probably as a rule very short, though with such universal prevalence this is hard to verify. All ages are attacked, young active adults being especially susceptible. In Germany there has been such a preponderance of cases among the young that it is supposed that the 1889 epidemic conferred an immunity on most of those at present over 30 years of age. This has not been observed elsewhere.

All evidence points to human contact as being the means of spread, and from the local symptoms it has been assumed that the nose and throat have been the points of egress of the virus and the points of inoculation. There is nothing to show that other animals have any part in carrying the disease.

Discussion as to the etiology of the disease has been chiefly concerned with the question whether the influenza bacillus of Pfeiffer (1892), is the specific causative factor. This organism offers difficulties in recognition, cultivation, and identification, and it may be that the failure to find it in the last pandemic and the failure of many bacteriologists of standing to demonstrate it in the present pandemic are due to these difficulties. It is certainly found outside of epidemics, and we can not regard its absence at present as indicating that the disease is not epidemic influenza. For the present the diagnosis must be clinical rather than bacteriological. Streptococci and other diplococci, some similar to or identical with the micrococcus catarrhalis, have been reported as very frequent in the nose and throat of patients. Pneumococci and bacilli of the Friedlaender group have been found in complicated cases. The mere predominance of a certain organism in the respiratory tract can not be accepted as proof that it causes the disease. It may be that the actual causative factor is a filterable virus.

The treatment is symptomatic. On account of cardiac weakness, rest in bed should be prolonged after defervescence in proportion to the severity of the case. Attention to cleanliness of the mouth, adequate ventilation, avoidance of exposure to cold, and isolation from those who may be carriers of virulent pneumococci and streptococci are measures advisable to prevent complications. Aspirin or similar remedies may be used to relieve headache and general pains. Watch should be kept for complications, and cases should not be discharged too early.

Crowded offices, and particularly street cars, are potent factors in the spread of the disease. In Berlin the street car conductors showed an exceptionally high incidence. The avoidance of street cars and of crowds, where possible, is therefore to be urged during an epidemic, although the disease is too mild to make it advisable to stop all the activities of a city. To prevent the transportation of the influenza virus to the well and possible causes of complications to the sick, masks for sick-room attendants are advisable. The organism is probably short lived outside the body, and attention should be directed toward keeping people apart rather than toward the disinfection of things, aside from the precautions of general cleanliness. The spread of streptococcus pneumonia in military camps, and the fear that with the advent of cool weather severe pulmonary complications will follow influenzal attacks more frequently than during the past summer, indicate the urgent need for the adoption of more stringent precautions to prevent such complications than have been customarily taken hitherto.

The most dangerous form of human contact in the presence of epidemic influenza is, in all probability, that with coughers and sneezers. Coughing and sneezing, except behind a handkerchief, is as great a sanitary offense as promiscuous spitting, and should be equally condemned.

Military Medicine.

Volunteer Medical Service Corps Of The United States.

The President of the Volunteer Medical Service Corps, Council of National Defense, has issued a statement to the effect that no one has been authorized to favor any organized or un-

organized method of coercion in inducing members of the medical profession to join the medical corps of the Army or Navy, or the Volunteer Medical Service Corps. "The Volunteer Medical Service Corps is a *volunteer* organization, which has for its object the enrollment and classification of the profession. Its members are entitled to wear an insignia which will clearly indicate that they have offered their services to the government when such services are needed."

The following questions, with answers appended, will throw light on many points about which doctors wish enlightenment. They have been selected from the inquiries which have been made of the Council:

1. What is the Volunteer Medical Service Corps?

The Volunteer Medical Service Corps is an organization which provides means for obtaining quickly men and women for any military or civil medical service required in the war emergency. It furnishes recommendations and necessary credentials to assure the best medical service, both military and civil.

2. How should application for membership be made?

Upon request to the Volunteer Medical Service Corps, Council of National Defense, Washington, D. C., application blanks and circulars of information will be sent. When received, the application form should be filled out completely, in accordance with instructions contained in the circular of information. The application should then be mailed to the Volunteer Medical Service Corps, Council of National Defense, Washington, D. C.

3. What is to be gained by the creation of this organization?

Placing on record all medical men and women in the United States; aiding Army, Navy, Public Health Service, Provost Marshal General's Office and the American Red Cross in supplying war medical needs; providing the best civilian medical service possible; giving recognition to all who record themselves either in Army, Navy, Public Health Service, Provost Marshal General's Office, Red Cross activities or civilian service.

4. What is meant by classification?

It is the record of information furnished by the individual physician so that when the need arises, he may be requested to perform service that will be mutually advantageous to the in-

dividual and the service to which he may be assigned.

5. Who are eligible?

Every legally qualified physician holding the degree of Doctor of Medicine from a legally chartered medical school without reference to age or physical disability is eligible for membership in the Volunteer Medical Service Corps, provided he or she is not already commissioned in the Government service.

6. How is eligibility to the Corps determined?

Upon information obtained from application blanks, three personal references and the Executive Committee of the state in which the applicant resides. Based upon the information thus secured, the Central Governing Board will finally pass upon applications.

7. Does membership in the Corps carry with it rank and pay?

This Corps is not authorized to bestow rank. Arrangements for compensation shall be made between a member requested to perform a specific duty and the agency requesting service. The matter of compensation and place of service, whether with or without rank, must be determined at the time said request is made. When a member of the Corps accepts service in the Medical Reserve Corps of the Army, the Naval Reserve Force, the United States Public Health Service, the American Red Cross or any governmental department, he or she will be accorded the rank and pay incident to the service in the department in which he or she has enrolled.

8. Will any member of this Corps be ordered to active duty?

No member will be ordered to render any service. Requests to perform specific duties according to qualifications and availability under the classification of the Volunteer Medical Service Corps may be made from time to time as emergencies arise.

9. What will be the probable character of service member will be requested to render?

- (a) Medical Reserve Corps.
- (b) Naval Reserve Force.
- (c) United States Public Health Service.
- (d) American Red Cross.
- (e) Local and medical advisory boards.
- (f) State and local health departments.
- (g) Medical Schools and Hospitals.
- (h) Industrial plants.
- (i) Civil communities.

Caring for civil communities, stripped of medical attention.

Caring for practices of physicians in military service.

Reclamation of registrants rejected for physical unfitness.

Services to needy families and dependents of enlisted men.

(j) Miscellaneous service.

10. If members of the Corps are recommended for active military or naval service, in what order will they be recommended.

(a) Physicians under 55 years of age, without dependents and without physical disabilities which are disqualifying will first be recommended. Following this group, physicians under fifty-five years of age without obvious physical disabilities which are disqualifying and with not more than one dependent in addition to self (Class I of the Volunteer Medical Service Corps), will be among the first to be recommended for actual war service. Any physician under fifty-five years of age who is without an obvious physical disability which is disqualifying and whose dependents have an income sufficient for the support of dependents other than that derived from the practice of his profession, may be recommended to enroll in the Medical Reserve Corps of the Army, the Naval Reserve Force or the United States Public Health Service when in the opinion of the respective Surgeon General his services are needed.

(b) Physicians under fifty-five years of age without obvious physical disabilities which are disqualifying and with not more than three dependents in addition to self (Class II of the Volunteer Medical Service Corps), will be the next group to be recommended to apply for active military or naval service.

(c) The next group recommended to enroll for active duty with the Army, Navy or Public Health Service (Class III), will be physicians under fifty years of age who are without obvious physical disabilities which are disqualifying and with more than three dependents in addition to self.

11. What are the exceptions in these groups?

The exceptions in the above groups of physicians are as follows:

(a) Those essential to communities.

(b) Those essential to medical schools and hospitals.

(c) Those essential to health departments.

(d) Those essential to industries.

(e) Those essential to local and medical advisory boards.

12. How will exceptions to these groups be determined?

(a) Essential to communities.—Essential community need will be determined by the Central Governing Board on recommendation of representatives of the Central Governing Board appointed by the Board to make a survey of local conditions.

(b) Essential to institutions.—Essential institutional need will be established after conference between representatives of the Central Governing Board of the Volunteer Medical Service Corps and representatives appointed by the governing bodies of the institutions concerned.

(c) Essential to health departments.—Essential health department need will be determined after conference between representatives of the Central Governing Board, Volunteer Medical Service Corps and accredited representatives of industries involved.

(e) Essential to local and medical advisory boards.—Essential local and medical advisory board needs will be determined after conference between representatives of the Central Governing Board, Volunteer Medical Service Corps and representatives of the Provost Marshal General's Office.

13. When will physicians who are not classified for actual military or naval service be requested to perform service?

When the emergency arises the following may be requested to perform duties in accordance with their qualifications and expressed merits as indicated by the information contained on their application blanks:

(a) Physicians over fifty-five years of age.

(b) Physicians with obvious physical disabilities which are disqualifying.

(c) Those rejected for all government service because of physical disability.

14. What are some of the duties that this last group of physicians ineligible for active military service may be requested to perform?

(a) Deducting those members of the medical profession who will eventually be in active military, naval or public health service, fully seventy-five per cent. of the remainder will be encouraged to continue at their home duties.

(b) Some of these may be called upon to supplement their private practices by performing part time service to meet community needs hitherto performed by men called to active duty.

(c) Twenty-five per cent. of those not actually engaged in war service (possibly 20,000 in number), who are now engaged in home duties but who have agreed to do work of any kind, anywhere, upon request of the Central Governing Board, will, as the emergency arises, be recommended for duty in the following places:

1. Local and medical advisory boards.
2. Medical schools and hospitals.
3. Industrial plants.
4. Health departments.
5. Communities lacking medical service.

15. How does enrollment in this Corps differ from actual conscription?

The Volunteer Medical Service Corps is exactly what its name indicates. It is a gentleman's agreement on the part of the civilian doctors of the United States who have not yet been commissioned in the Army or Navy or enrolled in the Public Health Service, or in the service of the Provost Marshal General, and a representative board consisting of government officials associated with lay members of the profession in which the civilian physicians agree to offer their services to the Government if requested to do so by the Central Governing Board.

16. In what way can this Corps aid the Government?

By recording all physicians who are not yet in service and classifying them so as to utilize the talents and facilities of individuals to the best advantage and inflict as little hardship on the individual as possible, in accordance with the letter from the President of the United States authorizing the Corps—"to supply the needs of the Army, Navy and Public Health Service * * * aiding in the important work of the Provost Marshal General's Office and Red Cross * * * and the problems of the health of the civilian communities of the United States." It provides a method by which every physician not in uniform will be entitled to wear an insignia which indicates his willingness to serve his Government. It furnishes a method by which the medical needs of the nation may be provided for through a representative board of physicians who know the needs of the Army, Navy, Public Health Service, Red Cross and civil communities.

17. To what extent must provision be made for essential civilian and industrial medical needs?

A large percentage of the physicians of the country will be required to care for their respective home communities and to meet civilian health needs. This percentage of necessity will be expected to maintain their home status and continue their professional work.

18. Will enrollment in the Volunteer Medical Service Corps excuse a physician in the draft age from registration under the Selective Service Law or from being classified therein?

Positively not.

19. Why then enroll in the Volunteer Medical Service Corps if it does not supplant the draft?

(a) Under the Selective Service Law individuals in the draft age are registered and inducted into the service as privates. The Volunteer Medical Service Corps enrolls and classifies individuals as prospective commissioned officers and will when requested assist in establishing the individual's status when he requests transfer from the enlisted forces to the commissioned branches of the service.

(b) Enrollment in the Volunteer Medical Service Corps definitely registers the physician as a patriot and provides definite governmental recognition of his willingness to serve.

20. Why should every physician in the United States enroll in the Volunteer Medical Service Corps?

(a) The unsurpassed record of volunteer enrollment for actual service on the part of the medical profession must be maintained.

(b) The Army and the Navy must not be hampered for a moment for lack of doctors to care for the sick and wounded boys fighting our battles at the front.

(c) The public health must be conserved.

(d) The medical needs of the Provost Marshal General must be adequately met.

(e) The great industries furnishing materials of war employing thousands of patriotic workers, must have medical service.

(f) The home folks, the old and the young wearily waiting over here, must have doctors.

(g) Recording, classifying and careful distribution and full utilization of our entire profession of medicine will enable us to instantly supply all demands, and our utmost resources will then be available to aid in establishing a permanent peace that will forever make this world a safe place in which women and children may live.

Proceedings of Societies, Etc.

ROANOKE ACADEMY OF MEDICINE.

The profession of Roanoke has put into operation a plan—adopted likewise elsewhere it is learned—that promises much for the enjoyment as well as the welfare of those taking part. This is an informal getting together once a week, at the lunch hour for sake of sociability and professional rubbing of elbows. The meetings are held at some hotel or restaurant, where a private room is feasible; each man pays for his own luncheon, the meetings begin promptly at one o'clock and adjourn at two. Thirty or forty minutes are devoted to eating, then the master of ceremonies for the day calls in turn upon three members present for any information they may have picked up from current medical literature, each being given seven minutes to talk. The subjects are left entirely to the discretion of the speakers; they must obviously be brief and to the point. Abstracts of papers in which the speaker finds something worth while, reports of interesting cases, something new in the therapeutic line—these in general are matters touched upon. The master of ceremonies appoints his successor for the week following, who takes entire charge of arrangements.

At the last meeting twenty-two doctors were present. Dr. Preston was master of ceremonies. Dr. Armistead spoke on the newer features of treatment of joint wounds; Dr. Garrett gave abstract of paper and spoke of the administration of powdered hypodermic tablets by sprinkling *under* the tongue, while Dr. Foster gave an excellent talk on the control of contagion by the cubicle method combined with gauze mask. Dr. Huff was appointed to have charge of the next meeting.

The Roanoke Academy of Medicine reopened for the session of 1918-19, on October 7th, at the Chamber of Commerce. The election of officers was to have been held at this meeting.

E. P. TOMPKINS, M. D.

Editorial.

Meeting Of Medical Society Of Virginia Postponed.

The Executive Council of the Medical Society of Virginia met October 7, and passed

the following resolutions:

“Resolved, That in view of the wide-spread epidemic of influenza throughout the State, we feel that the meeting of the Medical Society of Virginia should be indefinitely postponed. We believe that the great need of physicians in controlling this epidemic and treating the victims of this disease makes it imperative that they should stay where they are most needed. The date of the postponed meeting should be left to a committee of the President, the Secretary-Treasurer, the chairman of the Executive Council and the members of the local committees.”

Postal cards announcing the decision of the Executive Council have been sent all members of the Society, but the notice is likewise published in case any member may have overlooked the card mailed him.

Call For Doctors And Nurses In Present Epidemic.

Upon request of Dr. Beverley R. Tucker, acting President State Board of Health, we publish the following:

“Washington, D. C., Oct. 11, 1918.

“State Health Officer,
Richmond, Va.

“In view of countrywide spread influenza epidemic and need mobilizing all medical and nursing resources to combat it, I am suggesting to every state department health that immediate communication be had with every local city in state and definite information obtained as to number of physicians and nurses available in every community and needs for additional assistance. At this moment of national need, every locality should endeavor to organize local available resources and extend help to other communities in greater distress. In view general shortage medical and nursing profession is evident that all requests for assistance cannot be rendered and that those localities most adversely affected must be cared for primarily. Efforts to relieve shortage nurses should be made by appealing to retired nurses and to nurses in private employ and also organizing untrained intelligent women willing to render this patriotic service.

Surgeon-General Blue,

United States Public Health Service.”

Influenza Epidemic.

When the “Spanish influenza” first came into vogue, it was hardly thought that an epi-

demie of such enormous proportions would reach this country. We think of it, talk of it, and would almost dream of it, were we only given time. "In the recollection of the oldest inhabitants," we have never before been visited by an epidemic so virulent and at the same time covering so wide an area. Practically all States of the Union have suffered from its ravages to greater or less extent, but in some, we are glad to state, it is apparently beginning to subside. Such drastic methods for control have never before been so generally utilized by health authorities.

Doctors have not been immune to the disease and, with regret, we note that not a few have succumbed to influenza or its sequela—pneumonia. Their passing has brought sorrow to many, but may it bring a lesson to us all—that we are to take the same precautions which we urge upon our patients.

But why afflict the doctor further with a discussion of this epidemic when he, the nurse, the druggist, and, we might add, even the undertaker, have had our fill? A "rest-cure," in the form of an avoidance of the subject, would be better for us all.

Executive Committee, Volunteer Medical Service Corps.

Dr. J. A. White, Richmond, has been named chairman of the Virginia Executive Committee of the Volunteer Medical Service Corps of the National Council of Defense. Other members of the committee are:—Drs. M. O. Burke and J. N. Upshur, Richmond; J. W. Preston, Roanoke; P. A. Irving, Farmville; Southgate Leigh, Norfolk; and Hunter McGuire, Winchester.

The purpose of the committee is to co-operate with the central governing board in prosecuting activities pertaining to the mobilization and enrollment of members of the volunteer corps throughout the State.

The Central Governing Board of the Volunteer Medical Service Corps also authorizes the appointment of one county representative in each county in every state of the Union. The county representatives for Virginia are as follows:

Accomac—E. W. Robertson, M. D., Onancock.
 Amelia—P. T. Southall, M. D., Amelia.
 Appomattox—D. M. Robertson, M. D., Spout Spring.
 Albemarle—J. S. Davis, M. D., Charlottesville.
 Alexandria—W. M. Smith, M. D., Alexandria.
 Alleghany—J. C. Wisor, M. D., Clifton Forge.

Amherst—A. S. Priddy, M. D., Madison Heights.

Augusta—R. S. Griffith, M. D., Basic.

Bedford—J. A. Pollard, M. D., Huddleston.

Bland—J. N. Walker, M. D., Bland.

Brunswick—E. R. Turnbull, M. D., Lawrenceville.

Botetourt—R. H. Latane, M. D., Buchanan.

Buckingham—J. Randolph, M. D., Arvonion.

Bath—E. A. Pole, M. D., Hot Springs.

Buchanan—J. W. Waldron, M. D., Grundy.

Campbell—Sam Lile, M. D., Lynchburg.

Charles City—A. Harwood, M. D., Binns Hall.

Caroline—C. S. Webb, M. D., Bowling Green.

Cumberland—N. P. Snead, M. D., Cartersville.

Craig—R. P. Stryker, M. D., Sinking Creek.

Charlotte—C. W. Tucker, M. D., Drakes Branch.

Culpeper—A. S. Rixey, M. D., Culpeper.

Carroll—J. A. Tipton, M. D., Hillsville.

Dinwiddie—J. B. Jones, M. D., Petersburg.

Dickenson—J. C. Sullivan, M. D., Clintwood.

Clark—R. C. Randolph, M. D., Boyce.

Elizabeth City—G. K. Vanderslice, M. D., Phoebus.

Essex—J. N. DeShazo, M. D., Center Cross.

Franklin—W. T. Chitwood, M. D., Rocky Mount.

Fauquier—S. Harnsberger, M. D., Catlett.

Floyd—R. T. Akers, M. D., Alumridge.

Frederick—H. H. McGuire, M. D., Winchester.

Fairfax—F. M. Brooks, M. D., Swetnam.

Fluvanna—A. R. Gray, M. D., Palmyra.

Giles—P. G. Hundley, M. D., Pembroke.

Gloucester—C. H. Smith, M. D., Pinetta.

Goochland—W. M. Holman, M. D., Lee.

Grayson—S. W. Fielder, M. D., Fries.

Greensville—E. M. Parker, M. D., Emporia.

Greene—J. Ewell, M. D., Ruckersville.

Halifax—S. T. A. Kent, M. D., Ingram.

Henrico—J. A. White, M. D., Richmond.

" A. L. Gray, M. D., Richmond.

" J. N. Upshur, M. D., Richmond.

" M. O. Burke, M. D., Richmond.

" E. McGuire, M. D., Richmond.

Henry—R. R. Lee, M. D., Martinsville.

Hanover—J. T. Booth, M. D., Ashland.

Highland—H. H. Jones, M. D., Doe Hill.

Isle of Wight—L. Brock, M. D., Smithfield.

Louisa—E. A. Terrell, M. D., Fredericks Hall.

Lunenburg—E. M. Mann, M. D., Kenbridge.

Lancaster—F. W. Lewis, M. D., Morattico.

Lee—P. D. Pence, M. D., St. Charles.

Loudoun—B. F. Noland, M. D., Leesburg.

James City—G. A. Hankins, M. D., Williamsburg.
 King & Queen—C. Fauntleroy, M. D., Dragonsville.
 King George—M. W. Minor, M. D., Comorn.
 King William—B. B. Bagby, M. D., West Point.
 Montgomery—W. H. Edmundson, M. D., Christiansburg.
 Madison—E. W. Twyman, M. D., Twyman Mills.
 Middlesex—B. B. Dutton, M. D., Dot.
 Mecklenburg—H. L. Burwell, M. D., Chase City.
 Mathews—C. M. Rains, M. D., Bohannon.
 Nansemond—R. H. Pretlow, M. D., Suffolk.
 Nelson—G. C. Calloway, M. D., Norwood.
 New Kent—J. R. Parker, M. D., Providence Forge.
 Norfolk—Southgate Leigh, M. D., Norfolk.
 " E. E. Feild, M. D., Norfolk.
 " C. A. Saunders, M. D., Norfolk.
 " E. G. Maupin, M. D., Portsmouth.
 Northampton—G. F. Floyd, M. D., Bridgetown.
 Northumberland—A. M. Brent, M. D., Heathsville.
 Nottoway—J. H. Young, M. D., Burkeville.
 Orange—W. J. Crittenden, M. D., Orange.
 Page—W. L. Hudson, M. D., Luray.
 Patrick—L. C. Dickerson, M. D., Stuart.
 Pittsylvania—R. B. James, M. D., Danville.
 Powhatan—T. S. Henning, M. D., Jefferson.
 Prince George—B. L. Naiman, M. D., Hopewell.
 Prince Edward—P. A. Irving, M. D., Farmville.
 Princess Anne—E. Land, M. D., Virginia Beach.
 Prince William—B. F. Iden, M. D., Manassas.
 Pulaski—W. W. Chaffin, M. D., Pulaski.
 Roanoke—J. W. Preston, M. D., Roanoke.
 Rappahannock—E. W. Brown, M. D., Washington.
 Rockbridge—R. Glasgow, M. D., Lexington.
 Richmond—A. C. Fisher, M. D., Emmerton.
 Rockingham—J. E. Lincoln, M. D., Lacey Springs.
 Russell—O. S. Burns, M. D., Lebanon.
 Scott—M. W. Stallard, M. D., Dungannon.
 Shenandoah—W. F. Driver, M. D., New Market.
 Southampton—W. B. Barham, M. D., Newsoms.
 Smyth—S. W. Dickinson, M. D., Marion.

Spotsylvania—F. P. Dickerson, M. D., Fredericksburg.
 Sussex—Joel Crawford, M. D., Yale.
 Stafford—E. M. Sneed, M. D., Stafford, C. H.
 Surry—C. W. Astrop, M. D., Surry.
 Tazewell—J. N. Higginbotham, M. D., Burkes Garden.
 Washington—H. L. Bowyer, M. D., Emory.
 Warren—C. P. Laws, M. D., Bayard.
 Warwick—A. C. Jones, M. D., Newport News.
 Wise—J. N. Greear, M. D., St. Paul.
 Westmoreland—R. H. Stuart, M. D., Stratford.
 Wythe—J. T. Graham, M. D., Wytheville.
 York—S. G. Cook, M. D., Yorktown.

News of Officers In Medical Reserve Corps.

Dr. E. L. McGill, Petersburg, who was appointed to the medical reserve corps, with the rank of captain, left the latter part of September for Camp Meade, Md., to which place he was assigned for duty.

Dr. Henry C. Grant, Norfolk, has been commissioned lieutenant in the medical reserve corps.

Dr. F. O. Plunkett, Lynchburg, has been commissioned lieutenant and ordered to Ft. Oglethorpe, Ga., for instruction.

Dr. Bernard Pritchett, health officer of Danville, Va., has secured a commission in the naval medical service.

Dr. Landon Wilmer White, Suffolk, who volunteered for government service several months ago, was ordered the latter part of September to report for duty in Boston. He has the rank of lieutenant.

Dr. Charles L. Bradshaw, Falmouth, with the rank of lieutenant, was ordered to Camp Lee for duty, the latter part of September.

Capt. W. Fewell Merchant, of the Remount Depot, Camp Lee, Va., recently visited his family at Manassas, Va.

Capt. W. Wallace Gill, of this city, has been promoted to major, and is stationed at Langley Field, near Newport News, Va., having been transferred from Carlstrom Field, in Florida.

Dr. C. C. Coleman, Richmond, has been commissioned major in the medical reserve corps, U. S. Army, and been assigned to the section on brain surgery, Surgeon General's office, Washington.

Dr. Garland E. Faulkner, Jr., U. S. N. has been on a visit to his parents in South Boston, Va. He expects to be transferred to the army.

Dr. A. L. Tynes, Staunton, who was appointed captain in the medical reserve corps, U. S. A., has gone to Ft. Oglethorpe, Ga., to enter upon his duties.

Dr. John F. Ragland, Centralia, Va., has received a commission as lieutenant in the U. S. Navy, with instructions to report at Norfolk, Va., about the middle of October.

Dr. James Walker Walters, Lynchburg, Va., who has been commissioned captain in the M. R. C., left for Ft. Oglethorpe, Ga., the latter part of September.

Dr. Kenneth Bradford, Staunton, who recently went to Camp Lee, Va., has been a victim of influenza in a mild form.

Maj. Walter A. Newman, M. C., now stationed at Wilmington, N. C., was a recent visitor at his old home, Manassas, Va.

Dr. V. B. Hirst, of Purcellville, Va., who graduated from the University of Virginia this year, and has since been serving as an interne in one of the New York City Hospitals, has received his commission as first lieutenant in the Medical Reserve Corps, U. S. Army, and is now at Camp Greenleaf, Chickamauga Park, Ga.

Dr. W. Harmon Evans, of Lynchburg, Va., has been commissioned a first lieutenant in the medical reserve corps of the Army, and ordered to Camp Wadsworth.

Dr. Richard L. Hudnall, Lilian, Va., left early in October, to report for military service.

Maj. A. Barnes Hooe, M. R. C., Washington, D. C., is at the Medical Officers' Training Camp, Camp Greenleaf, Chickamauga Park, Ga.

Dr. Ennion G. Williams,

State Health Commissioner and President of the Medical Society of Virginia, is one of the many Virginia doctors who has been reported as suffering with Spanish influenza.

Dr. H. Cowles Rucker,

Of this city, on account of a nervous breakdown, as the result of overwork, has been forced to take a much needed rest, and has had to tender his resignation as one of the district physicians of this city. Dr. Rucker has been most efficient in his services and has thereby won for himself many warm friends and admirers.

Do Moving Pictures Injure The Eyes?

As this is a question so often asked, we copy from the *Bulletin of the Department of Health of New York City*, their opinion of this subject:

"Moving pictures, under favorable conditions, do not cause as much fatigue as the same period of concentrated reading.

"When there is ocular discomfort there is usually some ocular defect which should receive the attention of the eye specialist.

"When there is no such defect, at least four sittings of one and a half hours each week can be tolerated without discomfort.

"Under favorable conditions, moving pictures causing fatigue, if continued become unpleasant, may, if persisted in, become harmful, a condition which is greatly aggravated by fixed staring at one spot on the picture, a practice which should never be indulged in.

"A review of the current literature records no permanent harm to the eyes from viewing moving pictures. The fact that about ten million (?), more or less, people enjoy moving pictures daily, with no definite reports of specific harm or injurious effect, and with but few complaints of slight inconvenience, indicates that viewing moving pictures can have no injurious effects upon the eyes."

Dr. W. T. Wimbish,

Who has been practising in Clarksville, Va., for some years, is at present located in Duluth, Minn.

The Southside Virginia Medical Association

Held its sixty-second quarterly meeting in Emporia on the afternoon and evening of the 10th of September, Dr. Joel Crawford, of Yale, president *pro tem*, presiding. Many scientific papers were read and discussed by the goodly number who were present. At the close of the afternoon session, Dr. and Mrs. E. M. Parker entertained the doctors of the Association at a dinner given in their home. After the evening session, which was open to the public, the meeting adjourned to meet in Hopewell on the second Tuesday in December.

Southern Medical Association.

The twelfth annual meeting of this Association is scheduled to be in Asheville, N. C., November 11-14. Whether the influenza epidemic will cause a postponement of dates, we have not yet been notified, though if it has

sufficiently subsided, it will be a good time for doctors to get away from home and take a much needed rest. Inquiry addressed to Mr. C. P. Loran, business manager of the Southern Medical Association, Birmingham, Ala., or other official, will furnish the desired information on this point. Dr. Llewellys F. Barker, Baltimore, Md., is president, this year.

Though many members will be unable to attend, owing to their duties in the various camps and foreign lands, this "war time" convention promises to be a medical treat, and Asheville, noted alike for its beauty and hospitality, is an ideal city to visit at any time. Make your plans to attend the meeting if possible.

Outings Of Some Virginia Doctors.

Dr. and Mrs. Hugh M. Taylor returned to their home in this city in September, after spending the summer in Clarke County, Va.

Dr. Guy Hinsdale, of Hot Springs, Va., has returned home after a vacation spent at Kennebunkport, Maine.

Dr. and Mrs. C. C. Page have returned to Orange, Va., after a visit to Washington, D. C.

Dr. J. A. Gilmer, Big Stone Gap, Va., was a recent visitor in Jonesville, Va., having gone there to attend the Lee County fair.

Dr. Henry R. Carter, Ashland, Va., accompanied by relatives, enjoyed a motor trip to Urbanna and Irvington, Va., last month.

Dr. and Mrs. Paul Redd, of Highland Park, this city, enjoyed a trip to Philadelphia and Atlantic City, last month.

Dr. McGuire Newton, this city, spent a vacation at Atlantic City, N. J., in September.

Dr. and Mrs. N. E. McDannald, News Ferry. Dr. and Mrs. W. W. Silvester, Norfolk; and Dr. and Mrs. R. S. Fitzgerald, Richmond, were members of the early fall colony at Natural Bridge, Va.

Dr. H. S. Belt, South Boston, Va., was a recent visitor in this city.

Dr. William J. Crittenden recently returned to his home in Orange, Va., after taking a special medical course in New York.

Dr. B. B. Bagby and family, of West Point, Va., left the first part of October for a visit to relatives in Tappahannock, Va., where he expected to recuperate from an attack of influenza.

May Enlarge Army Hospital In Richmond.

It has been stated that the capacity of the U. S. army hospital, at Westhampton, just

outside of this city, will probably be doubled. At present the hospital will accommodate 1,000 patients. While no definite appropriation has been made for additional buildings, government inspectors have been studying the situation at Westhampton, with a view to increasing the number of beds to 2,000. Only a few overseas patients have been admitted to this hospital, and these were all medical cases—men who were not very strong and contracted illnesses while serving abroad. They will probably be later assigned to limited service in this country.

Large Number Of Drug Addicts.

According to reports made by a special investigating committee, together with a partial report on the number of drug addicts actually under physicians' treatment, the habitual use of morphine, cocaine, heroine and preparations containing other narcotic drugs, has increased rapidly in the United States within the last two years. A drastic antinarcotic law must be enacted to check the wholesale spread of the habit. It is thought that some men have systematically developed the habit to evade the draft or to secure their dismissal from the service. Virginia appears to have a smaller percentage of this unfortunate class than the majority of states, though a few drug fiends find their way into the military camps in Virginia.

Medical Society Of The State of Pennsylvania.

At the meeting of this Society in September, Dr. Cyrus Lee Stevens, Athens, who had served for twenty-three years as secretary of the Society, was elected its president, and Dr. Walter F. Donaldson, Pittsburgh, secretary. In recognition of his services to the Society, Dr. Stevens was voted a purse of \$2,000.

Major-General William C. Gorgas,

Of the U. S. Army, who accompanied Secretary Baker on his trip to France, after a tour of inspection of Paris military hospitals, where Americans are undergoing treatment, expressed satisfaction with the attention which our soldiers are receiving.

Three New Hospitals.

We quote the following from *The Red Cross Bulletin*, of October 7: "Many of the American soldiers wounded in the present severe fighting in northern France, have been taken to England and the American Red Cross hopes

to have all these men transferred to its own hospitals, where they will be attended by American physicians and nurses. Three new American Red Cross hospitals are now nearing completion in England, one of these, a naval hospital, in London, already receiving patients. The Red Cross Hospital at Salisbury, near Southampton, located in one of the most beautiful spots in that part of the country, will be the largest American military hospital in Great Britain. It will have a 3,000 bed capacity. The third hospital, situated at Windsor Great Park, will accommodate 500 wounded soldiers. Fifty small tent hospitals have been established at small camps, mostly aviation centers, where the number of men is not large enough to warrant the erection of a regulation hospital."

French Adopt United States Dressings.

We note from the *Medical Record* that the French War Department has officially adopted for use in French hospitals the surgical dressings made by the American Red Cross and will discontinue the French style of dressings. The Atlantic Division of the American Red Cross announces that dressings of the Red Cross chapters can be utilized for both French and American hospitals.

Dr. R. R. Nevitte,

Temperanceville, Va., was appointed by Governor Davis as one of the delegates to represent this State at the eleventh annual convention of the Atlantic Deeper Waterways Association in Boston last month.

Dr. P. A. Irving,

Farmville, Va., was designated surgeon for the student army training corps at Hampden Sidney College, to examine applicants for the unit.

Dr. Henry T. Miller,

Formerly connected with the Western State Hospital, Staunton, Va., has moved to Washington, D. C., to reside.

Dr. Francis G. Anderson,

Formerly of Giles County, but recently of Roanoke County, will be connected with the staff of Catawba Sanatorium, Va., this winter.

Medical College Of Virginia A Government School.

From October 1 to the close of the college year, the government is furnishing uniforms

for students eligible for enrollment in the training corps at the College. It also furnishes all necessary equipment, pays tuition, furnishes sleeping quarters and a place to eat, as well as pays them \$30 a month as soldiers. This is in contrast to the outlay it has previously required for a man to study medicine.

War Surgery Museum Opens.

A remarkable "museum of wounds," collected by the Canadian Army Medical Corps, was recently informally opened at the Royal College of Surgeons, London, by Sir Robert Borden. One of the most striking sections is that in which facial wounds are shown by means of war masks indicating the various stages of treatment, the difference from the original disfigurement to the "made" face being wonderful.

Lt. Charles R. Irving, M. R. C.,

Who went to France last May and has been in active service since, was recently wounded in action but, according to last reports, was well on the road to recovery. He was a graduate of the Medical College of Virginia in 1915, after which he served as interne at Sheltering Arms Hospital, Hansford, W. Va.

Dr. and Mrs. Peter Winston,

Farmville, Va., celebrated their golden wedding anniversary in September.

School Of Licensed Attendants Delays Opening.

Owing to the influenza epidemic, the school for licensed attendants, which was to have commenced October 14, has been compelled to delay its opening. Several of the teaching faculty have been suffering from the malady, while others are kept busy attending the sick.

Base Hospital At Camp Lee To Be Enlarged.

Approximately \$500,000 is to be expended in enlarging the base hospital at Camp Lee, Va., to meet the needs of the rapidly growing camp, and it is planned to start the work in the near future. The additions are to consist of a number of new buildings for patients, which will provide accommodations for about 800 extra beds. These buildings are to be two stories high and of semi-permanent structure. Seven or eight additional barracks are to be erected to house the enlisted personnel employed at the hospital and a number of new

buildings will also be erected as nurses' quarters.

Not Alone In Our Troubles.

While we are confronted with the influenza epidemic, the national medical department of Argentine Republic is alarmed by the persistent spread of an unidentified epidemic among children in Catamaroa province. In a month, 109 children have died out of a total population of 10,000. The disease resembles dysentery and is highly contagious and very fatal.

Married—

Lt. John Bunyan Bullard, M. R. C., U. S. Army, formerly of Stedman, N. C., and Miss Lena Shubrick Cole, of this city, September 17. Dr. Bullard formerly attended the Medical College of Virginia.

The American Association For Study and Prevention Of Infant Mortality

Is scheduled to hold its ninth annual meeting in Asheville, N. C., November 12, 13 and 14. The program states that especial attention will be given to war subjects.

Dr. William F. Mercer,

Of this city, announces the removal of his offices and residence to 1101 West Franklin Street.

Lecture At Jefferson Medical College.

Introductory to its ninety-fourth annual session, Dr. Jay Frank Schamberg, professor of dermatology and syphilology, delivered a most interesting address on "Medicine—Then and Now," on September 23, in the Clinical Amphitheatre of Jefferson Hospital, Philadelphia.

Dr. Walter B. Swift,

Of Boston, has just been appointed Consultation Expert for Speech Defects to the Division of Medical Inspection of the Public Schools of Cleveland, Ohio. He is engaged in installing methods in speech correction by directing some 15 teachers to conduct speech correction classes. These teachers he trained up last summer to do this work.

WE SHALL NOT SLEEP.

"In Flanders fields the poppies blow
Between the Crosses, row on row,
That mark our place; and in the sky
The larks still bravely singing fly,
Scarce heard amidst the guns below.

We are the dead.

Short days ago we lived, felt dawn, saw sunset glow,
Loved and were loved, and now we lie
In Flanders fields.

Take up our quarrel with the foe,
To you from falling hands we throw the Torch—
be yours to hold it high;
If ye break faith with us who die,
We shall not sleep, though poppies grow
In Flanders fields."

Though the above poem has appeared in numerous medical as well as lay periodicals, it is a gem well worth perpetuating. It was written by a doctor in the service, Lt. Col. John McCrae, of Montreal, who is now buried in Flanders fields.

Should not this appeal stir us to give to our utmost to aid the cause of our country and our allies if we are unable to lend a hand in other ways? The Fourth Liberty Loan drive may be over, but there are thrift and war savings stamps, Red Cross work, and numerous other worthy causes which call for our help.

Obituary Record.

Dr. William Dandridge Turner,

A widely known and prominent doctor of this State, died at the home of his son, at Shoalbay, Va., October 12. He was born in Richmond about sixty years ago and after completing his academic education at local colleges, studied medicine at the University of Maryland, School of Medicine, from which he graduated in 1880. Shortly thereafter, he joined the Medical Society of Virginia and had been one of its ardent workers and most regular attendants since. For many years he had been chairman of the Membership Committee of the Society and was a familiar and much beloved figure in the society hall. Formerly, he resided and practised medicine in Isle of Wight County, Virginia, but had spent most of his time in the past few years at Ocean View. He is survived by his wife, two sons and a granddaughter.

Modest in manner, but of a genial spirit and big-hearted, he had many staunch friends and admirers who will feel his death as a personal loss. He, himself, was a true friend—one that could be counted on at all times.

Dr. Thomas Nash Broadus,

A prominent and popular young physician of this city, died October 5, of pneumonia fol-

lowing Spanish influenza. He was born in Essex County, Va., November 1886. Upon completion of his academic education, he entered the Medical College of Virginia, from which he graduated in 1911. He served a year as interne at the Memorial Hospital, this city, after which he located and practised medicine in this city to the time of his death. His widow, mother, brother and sister survive him.

Dr. Bronson Ewing Summers,

Who was for several years located in this city prior to entering the U. S. Marine Corps, died September 28, at Quantico, Va., at which place he had been stationed since entering the service May, 1917. Death was due to pneumonia following influenza. He had recently been promoted to the rank of captain. Dr. Summers, who was 28 years of age, was a graduate of the Medical College of Virginia in 1912, after which he served as interne at Retreat for the Sick, this city. For three years before entering the service, he was connected with the Richmond City Health Department and filled this position most efficiently. His interment was made at his native home in Milton, W. Va.

Dr. Reuben Frank Davis,

A popular physician of Lexington, Va., died October 5, as a result of pneumonia following influenza. He was a native of Augusta County, Va., and was about 33 years of age. He received his medical diploma from the University of Virginia in 1910. Last year, he was surgeon to the Virginia Military Institute. His widow and three children survive him.

Dr. Edwin LeBaron Goodwin,

A lieutenant in the medical reserve corps of the U. S. Army, died October 10, at Ft. Niagara, N. Y., of pneumonia, following Spanish influenza. He graduated from the Medical College of Virginia, this city, in 1914, and was formerly a teacher at William and Mary College, Williamsburg, Va. Before entering the army, he had been practising medicine in Ashland, Va. Upon entering the service, he was sent first to Fortress Monroe, Va., and only recently to Ft. Niagara. He is survived by a widow and a large family connection.

Dr. Vivian Slaughter.

News has been received here of the death in action on the battlefield in France, of Dr. Vivian Slaughter, a native of Orange County,

this State. Details of how he came to his death have not been given out. He was a former University of Virginia student, having taken his diploma in medicine from the University. He later studied in Germany. He joined the medical corps of the British army in 1914, soon after the outbreak of the European war, and had since been in active service.

Dr. John Sidney Harrison,

Elm City, N. C., aged 41 years, died in Rocky Mount, N. C., early in October, after a short illness of pneumonia. He was a native of Norfolk County, Va. and studied medicine at the Medical College of Virginia, from which he graduated in 1903. For several years he had been associated in practise with Dr. E. G. Moore, of Elm City. Dr. Harrison was unmarried. He had many friends in this section who will regret to hear of his death.

Dr. Benjamin James Willingham,

Of Wilmington, N. C., died October 4, aged 37 years, of pneumonia resulting from influenza. He was a native of Richmond and received his academic and medical education in this city, his diploma in medicine having been won at the Medical College of Virginia in 1906. His widow and three children survive him.

Percy L. Witchley,

A member of the senior class of the Medical College of Virginia, this city, and also president of the student body, died October 11, from pneumonia following influenza. He was born and received his early education in Camden, N. Y. About eight years ago, he entered William and Mary College, this State, from which he received several degrees and was later associated with the College as a teacher. He was prominent in the student work at the Medical College and exceedingly popular among his associates. At the time of his death, he was engaged in special work at City Home Hospital.

Dr. William Ellerbe Pelham,

Newberry, S. C., died early this month after a short illness with Spanish influenza, aged 39 years. Dr. Pelham graduated in pharmacy from a Maryland school, and later studied medicine at the Medical College of Virginia and Tulane University of Louisiana, School of Medicine, taking his medical degree from the last named school in 1905.

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Original Communications.

SURGICAL REPORT OF THE AMERICAN RED CROSS COMMISSION TO ROUMANIA.

By ROBERT C. BRYAN, Major M. R. C., Richmond, Va.

Our Commission arrived in Jassy, Roumania, Sunday, September 16th, 1917, and was billeted that day to various private residences. No desirable headquarters being procurable, the courtesies of the American Legation were tendered to us by the Minister, Mr. Charles J. Vopicka.

September 17th. Dr. Catacuzene, medical chief of the Roumanian Red Cross, invited the Commission in audience, he emphasizing the dire straits and urgency of immediate assistance, stating that:

1st. The *hospital supplies*, bed covers, blankets, ticking, pillow slips, linen, pajamas and drugs of all kinds were practically exhausted.

2nd. The *surgical equipment* had been used up, sterilizers, vaporizers, tubes, drains, sprays, instruments, catgut and rubber gloves.

3rd. The *hospital utensils*, plates, knives, forks, and kitchen utensils could not be gotten.

4th. There was an *imminent danger of famine* demanding imperatively canned stuff, vegetables, meats, milk, fat, butter, oleomargarine, cocoa.

5th. The Roumanian Government was now taking care of 60,000 beds, but with the advent of cold weather, owing to typhus, recurrent fever, scorbutus and jaundice, double that number of beds would be required.

6th. The civilian population was in a complete state of demoralization, and had no

clothes, no thread, needles or buttons, and no food.

7th. There was an insufficient number of doctors. At the outbreak of the war there were altogether about 2,000 Roumanian doctors; of this number 200 had died of typhus fever, 300 had been taken prisoners, there were some in the conquered land, so that about 1,200 only were left who were doing the military and civil practice. In addition to the Roumanian physicians, 75 French were doing work at the front in their own hospitals. It may be instanced here that:

In the United States Army 7 surgeons are allotted to every 1,000 men.

In Germany 4 surgeons to every 1,000 men.

In Roumania there is 1 surgeon to every 1,000 men.

There is not a very pleasant relationship existing between the French and Roumanian surgeons, neither group receiving instructions from the other, so that in many hospitals where these two schools are thrown together the wards are divided. The French equipment is superior, in many excellent, in one (the French Hospital, Jassy), money is given to the patients when they leave and efforts made to provide them with artificial limbs.

September 18th. Audience with Dr. Constantinescu, Minister of the Interior. Dr. Constantinescu stated

1st. That the whole question was one of *food* for the Roumanian Army; that 500,000 Russian soldiers are daily eating the Roumanian food at a rate of 2,000 car loads of wheat a month, and that in 3 months the entire food supply will be exhausted. For this food the Russians are not paying.

2nd. That Moldavia (that part left of Roumania) is not as rich in farm lands as is Wal-

lachie and Dobrugia, those parts conquered by the Central Powers, and that with the Roumanian and Russian Armies to be fed, besides the normal civil population, the refugees and consequent congestion, Moldavia cannot support this population later than January 1st, 1918. The Government has requested all the more prosperous citizens to leave Jassy so as to facilitate as much as possible the food and fuel problem.

September 19th. Audience with Mr. Bals, President of the Roumanian Red Cross, who presents a list of

1st. *Urgent*,

2nd. *Delayed*, necessities for his organization. Dr. Peabody and myself were asked by the Chairman to take over the medical and surgical aspect of Roumania, to study the same and report our conclusions at a later meeting.

September 22nd. With Dr. Slatinaneau, of the Roumanian Red Cross, who had been delegated by Dr. Catacuzene, we visited Barlad, inspecting thoroughly 5 hospitals with capacities ranging from 200 to 800 beds. In the succeeding ten days we visited at the following centres:

Jassy	6
Barlad	5
Roman	1
Bacau	7
Saskut	1
Cotzfenesti	1
Rocaciune	1
Cautizi	1
Onesti	1
Pietra	5
Odessa	3

—

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From a study of the above mentioned hospitals, their surgical personnel, equipment and food, and the establishment of the conditions leading up to the present critical state of affairs, it may be well to mention that Roumania declared war against Austro-Hungary, August 27th, 1916. By November 15th, Bucharest had been lost; since January 1st, 1917 the front extends along a line about 10 kilometers to the west of Galatz, to the northwest through Tecucci, Adjuid, Onesti, to the Carpathian Mountains, the Russians holding the lower part of this line along the delta of the Danube and Black Sea, as well as the upper part in Galicia,

the Roumanians supporting the central zone with their army of 200,000, which has been reduced from a strength of 600,000. Three-fifths of Roumania has been lost and the remaining two-fifths, Moldavia, represents its unproductive fields and impecunious people. The normal population of Moldavia is estimated at 2,800,000, the present estimate is 3,500,000 of which 500,000 are refugees from Wallachia and Dobrugia. There are 60,000 beds for the care of the wounded and sick, 1 bed to every 4 soldiers. 15,000 extra beds are provided for the civil population. Some of the larger centres are:

Jassy	7,852
Barlad	2,108
Bacau	1,635
Tecucci	682
Galatz	2,162
Roman	1,930
Pietra	1,740
Husi	1,697
Vaslui	1,701
Botosani	830

The remainder of the beds are found in school buildings, private residences, hotels, theatres, warehouses, administrative buildings and barracks, all of which have been hurriedly converted or constructed for the reception of the Roumanian soldiers.

The three methods of maintaining the wounded are by, 1st. Red Cross; 2nd. Army; 3rd. Regina Maria.

I. *The Red Cross Hospitals* are the best appointed, have the best buildings (usually a well ventilated and spacious school) uniformly the best equipment, not over 500 beds, and offer a higher standard of surgical care and food than was noticed in the other group of hospitals. The terazzo floors of practically all this type of buildings are washed down daily with kerosene oil. The beds are usually the metal or the military bed, straw or felt mattress, and equipped with a pillow, two sheets and blanket. This superiority may be explained by:

1st. The Red Cross is an old and established institution in Roumania.

2nd. There are said to be 10,000 Red Cross nurses in Roumania who give their time and assistance to this organization.

3rd. Private subscriptions are solicited and given freely.

4th. The more prominent surgeons of Roumania are associated with this group of hospitals.

II. *The Army.* These hospitals represent the improvised barracks connected by covered walks, built along the unit plan, they are newly constructed, plank partitions, between which sand is piled, heated by large stoves, occasionally half-dugouts, windows, wooden beds, straw mattresses, one sheet, two blankets, wards more crowded than would be found under normal conditions. These hospitals are found at selected junctions and accessible railway points, up to 2,000 beds, and are, therefore, apt to be more remote from the towns and cities and, consequently, do not have the collaboration of female assistance.

III. *Regina Maria.* This group of hospitals was inaugurated by Her Majesty, the Queen of Roumania, and they are found usually in the smaller villages and towns. We were told that there was a deficit of one million Lei at the present time for which Her Majesty holds herself responsible.

1. *The Average Hospital*, selected from any one of the preceding groups, presents the following features in common:

A. All patients, on admittance, are bathed, scrubbed, shaved, washed with kerosene, provided with clean pajamas (or nightshirts) and socks and put to bed.

B. The uniform and all clothes are disinfected by dry heat, the ova of the louse being particularly resistant requiring 105°-106°. This heat does not injure the clothes or leather. There being no thermometers, a stick of naphthalene is employed; when this melts the desired heat has been attained.

C. All wounds are dressed on admittance, usually by the nurses or undergraduates, rarely by the surgeon in charge.

D. An attempt is made to classify surgical cases into certain wards; not infrequently the surgical and medical cases are indiscriminately admitted.

Estimate of Hospital Appointments:

E. Iron beds probably 40 per cent; wooden beds with no nails 30 per cent; wooden beds with nails 30 per cent.

F. Mattresses, felt or hair 10 per cent; mattresses, straw 80 per cent; hemlock boughs 10 per cent.

G. Sheets, one sheet 60 per cent; sheets, two sheets 40 per cent.

H. Pillow, straw 60 per cent; pillow, wooden elevation 35 per cent; pillow, feathers 5 per cent.

I. Blanket, one 75 per cent; blanket, two 25 per cent.

J. *Operating Room.* The best lighted room in the building is selected. In barracks, the operating room is constructed with this in view. The X-ray equipment and foreign-body localizers are unusually excellent, this department being run by an expert, the motor power in many instances being generated from a portable camion. The appearance, cleanliness, detail, technique and success of the operating room revolves around the personality and efficiency of the surgeon in charge. Surgical supplies and instruments are inadequate. Sterilized cellulose instead of gauze is being used in many hospitals to dress the wounds. There is a wasteful and extravagant use of suture material. Most of the bandages are put up by the American Red Cross. Rubber gloves are not used; we were told in Jassy that they could not be obtained. In Odessa there was an unlimited stock and we purchased 1,000 pairs for our hospital at Roman at 2 rubles, 80 kopecks per pair (about 70 cents).

K. *The water-closets* in every hospital are filthy, some beyond description; in all numberless flies were noted which must be a source of contamination. Apparently no effort is being made to control this evident and loathsome nuisance.

2. *The food* is insufficient and of improper character. The Red Cross Hospitals feed their patients better than the other hospitals. An illustration:

Breakfast 7 A. M.—Tea and black bread (whole rye and wheat.)

Lunch 12.—1. Soup, cabbage or weak vegetable. 2. Bread (black). 3. Beans (very few).

Dinner 6 P. M.—1. Soup, cabbage or weak vegetable. 2. Meat, three times a week, horse meat for prisoners. 3. Bread (black).

Tea served in the better hospitals at 4. P. M., no butter, no sweets, no coffee.

Bread. Whole flour is used in all the hospitals. Officers get 25 per cent white flour.

There are no meat extracts, fats, butter, oleomargarine, cocoa or delicacies unless brought in to the patient by members of their

families. The patients in the poorer type of hospitals are underfed and emaciated, although it must be remembered that in their homes, maize, with goat cheese ("Mamaliga") is their principal and constant diet. It would be an interesting investigation to trace the reported 20,000 cases of pellagra that existed in Roumania before the war. The paucity of stores in the larders was evident, and here as elsewhere innumerable flies were crawling about.

3. *Surgeons and Physicians.* There are at present approximately:

1300 Roumanian doctors in Moldavia,

60 French doctors in Moldavia,

25 British, American and other nations;
or a total of 1385.

These surgeons do the civil work as well among the cities and villages and country districts. An illustration of the professional complement in a Roumanian hospital is:

A. *Evacuation Military Hospital No. 9*, Barlad. 200 beds, (154 surgical, 46 medical) 3 surgeons, 1 intern, 1 X-ray man.

B. *City Hospital for Red Cross*, Barlad. 325 beds. 2 surgeons, 4 interns, volunteer Red Cross nurses.

C. *Hospital No. 217*, particularly for officers. 150 beds. 3 doctors, volunteer Red Cross Nurses.

D. *Regina Elisabetha No. 106*, Jassy, 200 beds. 2 doctors, 2 interns, 1 sister.

E. *L'Hospital 482*, Barlad, 800 beds. 5 doctors, 14 interns.

The general character of the surgical work done, the apparent indifference to detail, that 90 per cent (estimate) of all dressings are carried out by the nurses, and that the Roumanian is temperamentally averse to assiduous labor, the minutiae of hospital routine and disciplined organizations, substantiates the belief that there is no urgent need for additional surgeons at the present as the work during the coming winter months will not be surgical but medical, but there is need for medical men to educate the public, combat typhus and typhoid, organize relief corps, and to cooperate with the Roumanian authorities for the segregation and prevention of the spread of the typhus scourge, the study of the etiology of icterus, scorbutus, pellagra and recurrent fevers, and for the treatment of dysentery, tuberculosis, cholera, typhoid and the usual medical diseases; for the

establishment of dispensaries and charitable depots; for the psychological and scientific uplift, encouragement and preservation of the civil population who are crowded in the larger centres as Jassy, Roman, Bacau, Barlad, Galatz, Tecucci and Pietra.

4. *Nurses.* There are no regular trained Roumanian nurses. Princess Soutzo at Pietra started a few months ago a training school with a class of 40 who are to have a course of 6 months. They are then to be sent to different hospitals for educational, missionary and scientific work among the volunteer nurses. It is stated that there are 10,000 volunteer Red Cross nurses in the various hospitals and depots in Roumania. These young women in many instances represent the very best social classes, give their services freely not only in the surgical and medical wards but also as helpers in the kitchen and in other menial capacities.

5. The patients all appear undernourished, thin and even emaciated in many of the hospitals. In Odessa at the Invalid Benevolence, a Roumanian hospital, we were immediately struck how much better the men looked, it developing that the food they had was of a much superior character to that found in the hospitals in Roumania. The patients have on an average one change of pajamas and bed clothes every week. They are brave, long-suffering, well disciplined and solicitous of professional attention. The medical diseases are to be considered by other members of the Commission.

6. *Surgical Care and Character of Cases.* No hospital is devoted exclusively to medical or surgical cases, except the contagious hospitals, it being acknowledged that hospitals that are essentially medical in the winter are, in turn, essentially surgical in the more active warfare of the summer months.

A. *Transportation of the Wounded.* General Avenescu, Commander of the 2nd Army, with headquarters in Bacau, when asked what he considered most necessary for the army replied: "Rails, narrow-gauge cars and engines, for transportation of the supplies to the front and the wounded from the front." Dr. Catacuzene considers for the proper transportation of the wounded 100 additional ambulances are absolutely necessary. Procuring these motors, however, does not assure their use as the oil wells of Moldavia are now in the hands of the

enemy and many cars are out of commission now because tires cannot be gotten.

An instance of how a wounded soldier is returned from an unusually inaccessible point at the front may be given here from personal observation on a visit to the first line trenches at Onesti. This particular sector runs along the crest of a range of the Carpathians and is about 17 miles from railway facilities. The stretcher bearers carry the wounded from the trenches or "No Man's Land" to the Post de Secours, some several hundred yards to the rear, here he is inspected by the surgeon in charge, the wound is dressed, he is given some hot soup, and the first injection of anti-tetanus serum is administered, and morphine is also given if there is a serious injury or pain. He is then carried along a tortuous trail of six miles, two fresh stretcher bearers relaying every mile. At the foot of the mountain the wounded man is then put in an ox-cart and is borne several miles further, these specific roads being impassable for automobiles. He finally reaches a first base hospital in this ox-cart, or he may have been transferred to a small auto *en route*, the roads and conditions permitting. The class of cases that are kept at this hospital for surgical care are the more serious type requiring immediate operation; the less seriously wounded or sick are hurried on by the railway to a more remote or second base hospital, which is designed for the reception of these medical or surgical cases. This first base hospital is the first clearing house that the soldier visits among the many that he must pass through before reaching the front again to participate once more in active warfare.

In most instances, the means of communication between the trenches and the rear is more rapidly and comfortably carried on, the stretcher bearers soon finding the automobiles, which along improved or established roads bring the soldiers within a few hours of the receipt of the injury to the door of the first base hospital. This class of hospitals are represented by the improved school buildings, warehouses, or rapidly constructed plank dug-outs, with varying capacities from 50 to about 200 beds, and, dependent upon the activity of the sector that they are designed to drain, the wards are packed with groaning humanity or pretty well cleaned out awaiting new arrivals. There are 6 hospitals or bath trains identified

with the Roumanian Army designed for transportation of the wounded over greater distances. One of these hospital trains of 12 coaches has been under the direction and supervision since January 1917 of Nurse Oteteneshano, the Matron at Saskut.

B. *Equipment of first base hospitals* is meagre and in many instances lacking. Buildings which have been converted through necessity into first base hospitals have not the organization and appropriate adjustment of the receiving rooms, wards, operating room, etc., as obtains in those newly constructed plank buildings which have been designed particularly for this character of work.

1. *Kitchens* in all instances are dirty, unattractive and infested with numberless flies; apparently no attempt has been made to screen or prevent this nuisance.

2. *The Food* is unappetizingly prepared and served only to those patients in the wards who are unable to walk to a mess hall. An illustration diet has already been mentioned. Clay bowls and wooden spoons are provided to each patient in one of the hospitals in Bacau, this industry representing an enormous output by the convalescents.

3. *Water.* Roumania is said to suffer from a drought every summer and fall. The water supply, therefore, is inadequate and questionable, being brought varying distances, by carts, from wells (springs?), streams, to many of the hospitals where it is put in casks in the wards to be consumed by the patients. We recall but two instances (Cantemir 271. Barlad) where the water was boiled before being given to the patients. It was claimed at some of the hospitals that the drinking water was sterilized by permanganate of potash and by calcium chloride before being given to the patients. We did not have the opportunity to see this process being carried out.

4. *Fuel* in all hospitals is wood. There is no coal. Apparently no effort has been made by many of the hospital authorities to lay in a winter supply. Barlad and Bacau, large hospital centres, are remote from the wood producing districts.

IV. The water-closets have already been reported. The most loathesome and horrible conditions prevailing in fully 75 per cent of the hospitals. There are no fly screens used in the windows or doors.

V. *Linens*, pajamas, bed clothes, pillow slips and mattresses are insufficient, or of a most inferior character.

VI. Laundry department is identified with each hospital. With the price of soap at 4 francs a kilo, soiled clothes do not get the cleaning and sterilization which they demand. This offers a question, therefore, of reinfection by contact inoculation.

VII. *Drugs and Medicine, Pharmacal, Surgical Paraphernalia*. These are gotten from whatever source possible; the Roumanian Red Cross, the British Red Cross, private solicitations and the Minister of War. Although inadequate, improvisations are substituted, sterilized cellulose was very popular for gauze. Sterilization of dressings and water for operations was usually carried out by large autoclave, that of 60 litres capacity being the most popular. All bandages are washed and re-wound. There is a limited supply of Plaster of Paris, although several hospitals are liberally supplied. There are many varieties of improvised splints, fashioned after the idea of the surgeon in charge. One of the most popular is that wooden adjustable supporting splint designed by Tomachewsky, the Russian surgeon. There are very few thermometers, several hospitals possessing none. No screens are used in the wards to segregate the exposed or dying cases.

In one of the hospitals, Brañcovan, Jassy, a woman was noted making bacteria counts after the method of Carrel, and it was in this institution only that there has been an attempt to scientifically carry out the Carrel method of wound sterilization. In a few hospitals photographs are kept of the more interesting cases. Clinical charts and records are either not kept at all, or indifferently.

Surgical technique. Spinal anaesthesia for all operations by method of Jonnesco of Bucharest is adopted by practically every hospital,

the Roumanian surgeons claiming that this method of anaesthesia is:

A. More immediate.

B. Cheaper.

C. More effective, and

D. Has less mortality than ether or chloroform.

It is interesting to note that the first cases that enter a first base hospital after a frontal attack are those injured by the obus, this goes along with the beginning of the threatened attack; the second day injuries are caused by the obus and rifle; and wounds on the third day are produced by the hand grenade. The character of these wounds differs.

Burns. We saw no cases either from sapping or premature explosions.

Gas inhalation. We saw but few of these cases and most of them were characterized by a severe conjunctivitis, other than the usual type of laryngeal and pulmonary oedema.

Guillotining the bones in cases of joint invasion is not as prevalent now as formerly.

Trench-foot. There was not an undue number of cases during the last winter.

Lock-jaw. All wounded receive inhibitory injections and the mortality is negligible.

Wounds of the thorax. 30 per cent die on battle field, of those reaching the hospital 23 per cent die.

Wounds of the abdomen and skull. These constitute the largest mortality of any class of wounds.

A. *Of the abdomen*. If the patient survives to reach the hospital he is made comfortable, given morphine and not operated on, the expectant treatment is universally adopted.

B. *Of the skull*. Patients survive operations requiring large loss of brain substance, but ultimately succumb with regularity if there has been infection.

The following table illustrates the organization of the medical department of the military forces at the front as adopted from the French.

Hospital Centres.	Nature of Wound.	Treatment Given.	Time Under Observation.
The Surgical Post for the Army Division.	1. Wounds of the thorax and "gas cases."	1. Treatment medical and immobilization.	1. 48 hours.
	2. Wounds of the abdomen.	2. Laparotomy if possible.	2. Evacuation 8 days after admission to next military depot.
	3. Wounds of the extremities with abrasion and hemorrhage, but not requiring tourniquet.	3. Hemostasis, more often amputation.	3. Evacuation as soon as possible after admission.
	4. Wounds of the larynx.	4. Tracheotomy very rare.	4. Sent the following day to a special hospital.
	5. Trivial wounds.	5. Bandaging.	5. Returned to the Regiment.

Hospital Centres.	Nature of Wound.	Treatment Given.	Time Under Observation.
Evacuating Hospitals.	1. Wounds of the skull.	1. Trephine.	1. 1 month with no injury to the dura, 2 months with injury to the dura.
	2. Wounds of the thorax.	2. Rest and medical treatment.	2. 15 days after evacuation to the rear.
	3. Wounds of the joints.	3. Arthrotomy, extraction of foreign body, resection, medical treatment.	3. Discharged 5 to 6 days later with Plaster of Paris bandage.
	4. Multiple wounds with foreign bodies.	4. Individual extraction.	4. First dressing 24 hours later.
	5. Wounds of the bones.	5. Individual removal of the pieces.	5. Discharged 5 to 6 days later with Plaster of Paris bandage.
	6. Wounds of the calf, and general contusions.	6. Medical or surgical attention.	6. Discharged immediately to specialist. (Neurological).
	7. Wounds of the genito-urinary organs.	7. Medical or surgical attention.	7. Discharged immediately to specialist.
	8. Wounds of the eyes.	8. Medical or surgical attention.	8. Discharged immediately to eye specialist.
	9. Wounds of the face.	9. Medical or surgical attention.	9. Discharged immediately to a special hospital.
	10. Slightly wounded.	10. Surgical treatment.	10. Discharged to a special zone of the Army.
	11. Amputated.	11. Treatment.	11. Retained in a special pavilion annexed to hospital.
First Base Hospitals and Specialists.	1. Wounded who have been discharged immediately or later and developed serious conditions "en route."	1. The appropriate surgical treatment.	Discharged to the rear of the Army if there has been more than 1 month of treatment.
	2. Wounds of the thighs, buttocks and general severe contusions.	2. Neurological.	
	3. Wounds of the eyes.	3. To an eye specialist.	Retained if less than a month of treatment.
	4. Wounds of the face.	4. To the specialist.	
	5. Wounds of the ear, pharynx and larynx.	5. To the specialist.	
	6. Wounds of the genito-urinary organs.	6. To the genito-urinary specialist.	
Second Base.	1. Other injuries.	1. Revision and keeping under observation if there is room.	Same as in First Base Hospital.

In consideration of the above observations the following conclusions have been made.

A. *Hospitals.* There are a sufficient number of hospitals for care of the military sick and wounded; about 60,000 beds have been established which equals one bed to four soldiers as previously shown. This should prove ample except in the event of a large offensive attack or an overwhelming recurrence of typhus-exanthematicus. Numerous dispensaries and supply depots for the civilian poor and needy should be started, these depots do not have to be attended necessarily by surgeons. The surgical standard of the Roumanian hospital is low, considerably lower than obtains on the western front under similar war conditions,

and vastly inferior to what we are accustomed to in America.

B. *Hospital equipment and foods.* There is an urgent need for hospital supplies, drugs and surgical equipment of all kinds. Roumanian ingenuity has shown itself on many occasions in producing substitute improvisations; these are about exhausted now. Russia could supply most of the necessities; there are, however, at present, many demands upon her source of supplies. France has given freely and continues to maintain her Roumanian hospitals. England is most generous through her Red Cross organizations and donates liberally. America must supply constantly those articles which cannot be gotten from the above named

sources. The more important are bed clothes, hospital garments, drugs, surgical paraphernalia, knives, scissors, haemostats, Plaster of Paris, adhesive plaster, bandages, gauze, cotton, antiseptic solutions, screens and netting for windows, soap and foods, particularly the fats, milk (condensed), meat extracts and bread; biscuits, tinned products and preserves would greatly help the convalescent stage. How these hospital supplies and foods are to reach Roumania is a question of transportation of great interest which is to be considered by other members of the Commission.

C. Nurses. There is no need for the American trained nurse in the Roumanian hospitals. Roumanian Red Cross nurses are doing a very noble and useful work. The American or British trained nurse could serve only under American or British organization in a hospital. Household or district nursing and social work carried on by the American nurse under the auspices of American surgeons would be educational to the civil population and, in the smaller towns, villages and rural districts would assist in the partial control of the infectious diseases.

D. Physicians and Surgeons. Although the total number of physicians in Roumania is small, much smaller than should obtain, it is questionable if the addition of many American physicians would be desirable or acceptable. It is the opinion of the writer that it would be unwise to send American physicians to Roumania to work with and among the Roumanian physicians in carrying out either a military or civil practice. The American physician should be established only as such in American hospitals, under distinctive American auspices and prestige, where his desire and work would be to assist, uplift, educate and encourage a people who have been decimated by disease, overwhelmed by superior forces and threatened by famine, whose fortitude and constancy have been unshaken, and who, in continuing under such adverse conditions to hold their battle front, are offering an example that America cannot fail to be cognizant of and proud to assist and support.

Grace Hospital.

CLIMATE AND TUBERCULOSIS.

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The value of climate in the treatment of tuberculosis has long been recognized. Hippocrates said, "If you have that consuming fever of the lungs go into the hills and live on the fruit of the cow." Time was when climate was given first place among the factors of value in the treatment of this disease. More recently its influence has been the subject of much discussion among phthisiotherapists and it has fallen into more or less disrepute. I shall not discuss this phase of the problem except to say that if the patients can have *all* the other things that make for restoration to health climate is a factor of distinct value.

The word climate is derived from a Greek word meaning inclination or slope. As we reckon it today climate takes into consideration the temperature of the air, its humidity, density, motion, transparency, and electrification and the amount of sunshine and precipitation. Climate leaves its impress on the life, habits and character of all races and all peoples. The Eskimos would find life outside the Arctic Circle almost unendurable; the Latin races of Europe live readily in the tropics where the Tonic stock must struggle incessantly for existence. In the deserts and on the great treeless plains where water and grass often fail, man becomes a nomad, whereas in the forests of the north he fells trees and builds himself a cabin. Climate effects the character of the habitation man erects. Under the hot sun of the tropics his home is open and low, shade is sought and every breeze is courted. As one goes to the north the houses are higher, the openings fewer and the construction changes to compact stone and brick. Climate leaves its imprint upon fiction and history, upon poetry and prose. To the wandering Bedouin, he who dug a well was a benefactor. Green trees and running water were his ideals of Paradise. In the colder north the halls of Valhalla were their hope of a hereafter.

There is no specific climate for tuberculosis, none where every case will do better even under the most ideal conditions. The great Trudeau found his ideal climate conditions amidst the rigors of an Adirondack winter,

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others do best in the elevated regions of the semi-arid Southwest, others in a more moderate altitude such as this where, while the precipitation is greater, there is a like abundance of sunshine and none of the wind and dust storms so annoying in the Southwest. The climate that is conducive to the most pleasant and most constant out-of-doors existence is, other things being equal, the best climate for the average pulmonary invalid, for in the out-of-doors both man and animals are freer of disease. The cattle on the ranges thrive better and are less subject to disease than those confined in stables. Conditions unsuited to the maintenance of health by the well may be expected to be still more unsuited to the restoration to health of those who have to combat disease.

Tuberculosis is a disease of slow course and the fight between the infective agent and the host is a prolonged one. There being no known specific for the disease, therefore, recovery depends upon doing everything possible to aid the body in its struggle for supremacy over the malady. To this end, we say the patient shall live a careful life in a suitable environment and, in addition to proper diet, rest, exercise (when prescribed), amusement and *happiness*, a suitable environment implies the suitability of the atmosphere or climate to promote the highest physiologic efficiency of the human machine. To the person afflicted with tuberculosis the possible benefit to be derived from a change of climate frequently suggests itself or is suggested even before due consideration is given to the many other things of equal or greater importance than climate *per se*. To the majority (thanks to an intensive campaign of education this idea is becoming less and less prevalent) of consumptives the "cure", like the "mother lode" to the miner, is usually just beyond the ridge; he has the too common idea that somewhere afar off there is a region with a climate best suited to the tuberculous and that if he can just get there this climate alone will affect a "cure". This is absolutely false and has been the cause of much misery and suffering and it is our duty to refute it at every possible opportunity. Climate is at best but a factor in treatment and by no means the most important factor, and unless the other factors, rest (and plenty of it), good food, open air (out of doors), good housing, proper medical supervision and free-

dom from worry, can be obtained, and *all* obtained, with a favorable climate the "cure" will be as elusive as the "mother lode" and the favorable climate will avail us nothing.

The conditions to be sought in a climate for the tuberculous are those atmospheric conditions most suitable to maintaining the normal physiologic functions of the body at highest efficiency and most conducive to a pleasant and continuous out-of-door existence, conditions of value to the well-being of the healthy but of special importance to those who have a chronic infection, such as tuberculosis, to combat. The things which make a climate favorable or unfavorable, relatively speaking, for the tuberculous are the temperature and degree of humidity of the air, the frequency and velocity of winds, the amount of sunshine and precipitation, the transparency of the air and the presence or absence of dust or smoke. The most favorable temperature is one that is comfortably cool. Very cold weather is uncomfortable to some and ill-borne by the very weak; it is likely to tempt patients to remain in doors but in this indirect way only does it have an ill effect. The men who have been working at Saranac for years tell us that one winter is worth two summers and there winters are pretty severe. Very hot weather is debilitating and is poorly borne by the tuberculous. Moderate daily changes between night and day temperatures are an advantage and act as a physiologic stimulus to all body functions. Humidity is of more importance, for the greater the humidity the less favorable is the climate for the average tuberculous patient. Both heat and cold are more poorly borne if the humidity is high. Winds are distinctly annoying and objectionable and render certain regions, otherwise favorable as resorts for the tuberculous, very unfavorable at certain seasons of the year. Winds stir up dust which irritates mucous membranes already inflamed and they rob the body of its heat, by conduction of the wind if damp, by evaporation if it is dry. Sunshine for the greatest possible number of hours per day and days per year and a relatively light precipitation (preferably more snow than rain) are factors which add to the value of a climate suitable to the tuberculous. Clear rain and the absence of fogs are favorable factors and the smoke and noxious vapors, particularly of industrial centers, are correspondingly unfavorable to the

tuberculous. Practically all regions in the temperate zone offer favorable weather conditions for part of the year; some have longer periods of favorable weather than others, *all* have some periods that are distinctly unfavorable due in some sections (i. e. the Southwest) to excessive wind velocity and dust storms, in others to an excess of humidity, great precipitation, lack of sunshine or what not. No climate is entirely good and few are entirely bad.

Many tuberculous patients find fault with their home climates when the real trouble is with them. They are not availing themselves of the favorable climatic conditions existing there. However, this constant finding fault with the climate, this spirit of unrest and constant feeling that somewhere is a more favorable climate than the one in which they are now living, this "wander-lust" of the consumptive is a trait characteristic of the tuberculous, a trait well recognized by those who have been for any period closely associated with any considerable number of tuberculous individuals, a trait which I have previously likened to the miner's constant quest of the "mother lode". The consumptive who contemplates going to a distance in search of a more favorable climate must consider well the sacrifices he will have to make and whether the gains will compensate the losses. He must consider the expenses and more or less hardship of the journey and the fact that living expenses are always higher in resort regions than elsewhere. He must consider the question of being able to secure proper medical supervision and nursing care, the question of proper and sufficient food, essential to everyone, but vastly more so to the consumptive. Many cases go to resort regions in the hope of working to pay their expenses. Work is harder to get in these regions than elsewhere; the consumptive cannot compete with the healthy worker and work will in the great majority of instances be too great a tax on the strength of the patient and will more than offset any good effect obtained from the bettered climatic conditions. Unless the patient is financially able to go to the resort region and live properly for at least one year (have at least \$100 per month available) without work or *worry* he had better remain at home and make the most of climatic conditions existing there, for, as Pottenger (Pulmonary Tuberculosis—p 220)

has aptly said, "it is better to make good use of a bad climate than bad use of a good climate". Every pulmonary invalid needs medical supervision, particularly during his early career as a consumptive, for he must be taught how to live, what to eat and how to eat it, what he may do and what he may not do, etc., things best taught in that great training school for the tuberculous, the sanatorium. He must take into consideration all these things and also the home-sickness that will come, separated from family and friends, in a new locality among strangers and must consider the effect of the worry that will be his as to the welfare of his family during his absence.

SUMMARY.

No locality in the United States (or elsewhere) has a climate that is absolutely favorable for the consumptive at all seasons of the year. Most localities have favorable climate conditions for a considerable portion of the year if one will only avail oneself of them and cease one's constant fretting to go to some supposedly more favorable region. The Southwest, for many years held in high repute as a region offering favorable climate conditions for the consumptive, has a favorable climate for a considerable part of the year, but it too has its disadvantages. The wind and dust storms in the winter and spring are a distinct disadvantage and very annoying; some patients will find the heat enervating, others that the altitude necessary to escape this heat puts too great a strain on the heart and lungs, others (particularly the very debilitated) that the variations between night and day temperatures are too great. Briefly, the most favorable climate for the tuberculous is one in which—

1. It is always comfortably cool (no enervating heat.)
2. There are fairly well-marked variations between night and day temperatures, but not excessive variations.
3. There is moderate wind movement (no real wind storms) just enough to create a breeze.
4. There is as little dust as possible and no dust storms.
5. There is a minimum of humidity.
6. There are no noxious vapors and no smoke.
7. There is moderate precipitation, a greater portion being snow.

8. There is a maximum of sunshine all the year round.

However, to be of any avail one must be able to secure in addition to this favorable climate *all* the other essentials,—plenty of rest, suitable food, proper medical supervision and nursing care, to exercise only as prescribed by the physician and be free of worry, for *happiness* is as important a part of treatment as is rest, open air, good food or anything else. If he is unable to avail himself of these other essentials, he had better remain at home, and as Dr. Pottenger says, “make good use of a bad climate” which will doubtless be found not to be so bad after all if good use is made of it.

In conclusion, I desire to thank Dr. F. B. Brewer for valuable criticisms and suggestions during the preparation of this paper.

SUBMUCOUS RESECTION OF THE NASAL SEPTUM.

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A paper on submucous resection of the nasal septum before this body would seem a work of supererogation and this is not presented as adding to our knowledge of the subject. It is, however, sometimes wise to review a surgical procedure which has been in use for a long time, and see if, by talking it over, we can aid each other in perfecting our technique or in clearing up the difficulties that may occur in our procedure. What seems an almost insuperable difficulty to one man is sometimes an easy procedure to another, and by getting together and talking over difficulties many clouds may be cleared away.

Submucous resection of the nasal septum is not the operation of any one man, nor can any operator lay claim to having devised it, as we now know the procedure. It has been a gradual building up here and taking away there, improving and simplifying until it has reached its present state. The names of Krieg, Boeninghaus, Ingals, Freer, Ballenger, Hajek and Killian stand out most prominently as the pioneers in the field, but others have added their quota to the sum-total and the names are too many to be mentioned.

Two decades ago every teacher of rhinology was following the lead of text-books and telling his students of a dozen or more opera-

tive procedures for the correction of deformities of the nasal septum; from this multiplicity of material he probably selected two or three which, to his mind, best met the indications, and perfected himself in their use and demonstrated them at his clinics. There are comparatively few of the rhinologists of today who could describe off-hand the technique of these various operations if they were called upon to do so without previous preparation.

The special instruments devised for each technique have been relegated to our cabinet containing mementoes of the past or else our ingenuity has enabled us to use them in some more modern method.

Deviation of the nasal septum interfering with aeration and drainage of the nasal chambers and accessory sinuses is responsible for more pathology in this region than any other single factor; hence, it is very necessary that it should be corrected. The operation that best does this, giving the most permanent results, is window resection of the septum, in which the mucous membrane covering the cartilaginous and bony portion is preserved. There occur cases where it is not necessary to remove the entire thickness of the septum, but sawing off the projecting ridge entirely corrects the obstruction. In these cases the mucous membrane should be elevated and the spur sawed off, then the membrane replaced.

The indications for the operation are a deviated septum or extreme thickening of the septum sufficient to interfere with physiological drainage and aeration or making pressure in the ethmoid region through drainage and aeration are not manifestly interfered with. The first indication of this condition is frequently persistent headache, which is liable to be worse about the time of arising from sleep, and to get better after moving about in the upright position; however, it is not infrequent that headaches which have all the apparent indications of being of ocular origin are due to pressure resulting from a deviated septum. Asthma, which is not distinctly traceable to cardiac or renal disease should be the cause of a most careful and searching examination of the nose and a definite pathological condition of the ethmoid due to deviation of the nasal septum will often be found. Focal infections with their attendant trail of evils, often in most remote parts of the body, have received much attention of late, but the teeth and tonsils have monopolized the greatest part of this atten-

tion. The nasal accessory sinuses and ethmoid labyrinth are too frequently overlooked, for here is the location of the infecting focus in very many cases, and deviation of the septum has been the factor that caused the focus to be formed. A prominent internist said to me that, in his opinion, it was as important for the general practitioner to have an understanding of the use of a head-mirror and nasal speculum as it was to understand the use of the stethoscope. In this opinion, I fully concur.

The technique of the operation is variable, like that of all other surgical procedures, each operator having small points of technique that others probably do not use.

Local anesthesia is best. If the patient is very nervous, a hypodermic of morphine sulphate, grain $\frac{1}{8}$ to $\frac{1}{4}$, combined with atropine sulphate, grain $\frac{1}{150}$, and hyoscine hydrobromate, grain $\frac{1}{100}$, will greatly quiet the nervous symptoms and reduce the sensibility to pain. Wring a cotton swab out of sterile water and dip into cocaine flakes, and with this sort of swab, rub each side of the septum thoroughly, doing this two or three times at intervals of ten minutes; immediately after the last rubbing, cover each side of the septum with cotton swabs, saturated with 1/1000 adrenalin solution. In five or ten minutes, remove swabs and inject under the mucous membrane the weakest Schleich solution. This will thicken the membrane and should be made under the perichondrium, thus beginning the separation and making operation easier.

The initial incision may be curved or straight, but should be upon the side of convexity, and in front of the curved portion of the septum. If the convexity extends very low down toward the nasal floor let the incision be prolonged across the floor.

The mucous membrane and perichondrium must be cut through, letting the knife edge cut into the cartilage a little, while the little finger is held in the opposite nostril.

Then, with various shaped elevators, separate the perichondrium and periosteum from the cartilage and bone, working from above downward and from behind forward, until the mucous membrane upon the side where incision was made is freed from the underlying bone and cartilage. In some cases where the angle is near the floor, it will be necessary to separate the membrane from the floor and work upward to the angle from below to meet

the separation made from above down to the angle. Cutting through the cartilage to the concave side without injuring or perforating the membrane is frequently a task of some difficulty and the spoon curette makes a safe instrument for this purpose, using it with the finger in the opposite nostril to make counter pressure. Having cut safely through the cartilage, elevation of the mucous membrane on the opposite side is proceeded with till it is free from the underlying bony and cartilaginous septum. Next, with bone forceps, swivel knife, etc., we remove the cartilage and bone down to the angle. In my hands, the chisel with V-shaped cutting edge has proven most satisfactory for removal of the ridge, cutting close to the floor with careful but firm taps of the mallet, and now and then moving the handle of the chisel up and down to separate the fragment as it is cut; remove the ridge with heavy forceps and a slight twisting motion to free its posterior extremity.

After removing the stiff portion of the septum and placing the two mucous layers smoothly with their underlying perichondrial and periosteal layers in apposition, if there has been much bleeding, a small button-hole can be cut on one side down near the floor for drainage.

I always pack, believing that packing keeps the parts in better apposition, reduces post-operative bleeding and the liability to hæmatoma or abscess. These advantages have seemed to me to outweigh the disadvantage of a stopped-up-nose for twenty-four hours.

A good packing is a Simpson-Bernay's sponge in a thin rubber finger cot. The finger-cot should be boiled and after the sponge is put into it, several cuts are made in it to allow secretions to be absorbed. Place one in each side and do not remove for twenty to twenty-four hours. After removal, the nose should be sprayed daily for several days by the surgeon. Be careful not to meddle unless a distinct reason for so doing arises. Special accidents must be met as they arise. The after-results of this operation are very satisfactory.

3 West Grace Street.

It is stated from London, according to official statistics, that vivisection experiments last year on living animals totaled 55,542, or 10,501 less than in 1916. Of this number, 6,231 were cancer investigations, while 22,600 were for the preparation, testing and standardizing of sera, vaccines and drugs.

Practical Points in Current Medicine

Internal Medicine

Classification of Neurocirculatory Asthenia Cases In Use At Camp Upton.

Atkinson, of the Cardio-Vascular Board, at Camp Upton, submits the following as a guide to examination of draftees:

1. Tachycardia.

Persistent tachycardia with poor response to exercise, dyspnea on slight exertion, pulse persistently over one hundred after from two to five minutes rest, recumbent. Etiology may be unknown or there may be a history of any one or all of the following diseases: Any of the diseases of childhood, especially diphtheria, scarlet fever and chorea; typhoid fever, syphilis, chronic tonsillar infection, pansinusitis, rheumatic fever, etc.

2. Hyperthyroidism.

3. Neuro-Circulatory Asthenia. Under this heading we have classed those cases which have corresponded to Lewis' description as closely as seemed practical, viz.:

- (a) An evident neurosis with neurotic faces.
- (b) Inclination toward obesity, sweating.
- (c) Cyanosis of hands and feet, with bluish mottling of trunk and thighs.
- (d) Apparent instability of vaso-motor system.
- (e) History of breathlessness all life.
- (f) General poor response to exercise of entire muscular system.

It is quite evident with this picture before us to clearly differentiate from the condition known as "Endocrinopathy," with the clinical means at our disposal.

It is to my mind quite evident that the term N. C. A. has been used too extensively and I feel that with our present knowledge, each of these conditions are so closely allied that it is impossible, indeed unprofitable, to draw fine lines of distinction. Suffice it to say these three groups are not qualified for any military service.

It has, therefore, been our custom to use the broad term "Tachycardia" in line cases rather than attempt a refinement of diagnosis, which is next to impossible.

4. Tachycardia cases which should be accepted for service.

There are under a fourth grouping, rapid hearts, 130, 135, even 140, with over-action after exercise, but who we think should not be rejected, where hearts quiet down immediately on rest, the condition being due apparently to lack of training. These individuals have led sedentary lives and experience has proven their worth in the army.

In conclusion, let me say that it is in my opinion unfair to the government to accept persistently rapid, over-acting hearts, with the hope that army life will be of benefit. The history of the various Development Battalions has proven this is not so.

Obstetrics

Influenza and Pneumonia Complicating Pregnancy and Labor.

When the full reports of the mortality of the present epidemic of influenza and pneumonia are received, I believe that the pregnant and recently delivered women will be given a very high rate, probably as high as seventy-five per cent. I have heard of more than a half a dozen women in Richmond losing their lives in the latter months of pregnancy from the epidemic, and one or two in the early months following an abortion. Lactation in most women seems diminished by the influenza, and death of the child unborn has occurred.

My experience has been limited, but the following cases will bring out some of the points.

Case 1.—Mrs. J., age 20; third pregnancy: brought to the hospital with pneumonia following influenza; temperature 104, pulse 130, respiration 38. Was delivered normally in forty-eight hours, and has recovered, with diminished milk secretion.

Case 2.—Mrs. W. Had pneumonia at thirty-sixth week of pregnancy, but very little sick apparently, recovered and delivered at term of small baby. Milk secretion very small amount.

Case 3.—Mrs. —. First pregnancy. Influenza. On third day taken in labor. Pains very weak, and coughing a great deal; as soon as the cervix was fully dilated, the waters were broken and she was delivered by forceps, to save the strain on her lungs. A very small amount of chloroform was used, as anesthetics should have a *definite indication* for their use during this epidemic.

Case 4.—Mrs. —. Brought in from one of the counties with pneumonia and died within

one hour of her arrival. She was undelivered and was only brought to the city because her doctor had more than he could do.

Csae 5.—Mrs. B., age 21. First pregnancy, thirty-eighth week. Had influenza followed by pneumonia in both lungs. On the fourth day pains started like labor, but soon subsided, and no further motion of the child nor could the fetal heart beat be heard. Her kidneys were soon impaired and edema of the lungs closed the chapter. Her child was undelivered.

I know of at least six similar cases, as far as rumor goes, and one or two deaths following abortion. Several of these died within forty hours after delivery.

All pregnant women should stay away from infected people, and it is better for them to be over-careful, than to take any risks with such a fatal epidemic.

VIRGINIUS HARRISON.

General Surgery

War Wounds of the Lungs.

"I have removed the human lung from the chest cavity with forceps, tied its bleeding blood vessels, cleansed its outer surface, and, while still holding it in my hands and manipulating it as you would a handkerchief, I have run thin pieces of gauze up its tracts. Feeling my way carefully along its walls I have removed a bullet or shell fragment. Then, after suturing the aperture, I have placed the respiratory organ back into the cavity of the chest. In two-thirds of the cases upon which I have so operated the patient lived."

This was one of many statements made recently to 1,200 medical officers of the American Army at Camp Greenleaf, by Colonel Pierre Duval, of the French Reserve Medical Corps. Colonel Duval is here with ten of the foremost surgeons of England, France, and Italy, to attend the Inter-Allied War Conference of Surgeons. The medical experts are on a tour of this country and will visit several large cities to give first-hand information to the medical fraternity of military surgery as practiced and developed in base and evacuation hospitals at the front.

This is the first inter-allied surgical congress held in America since the United States entered the war. Its results are expected to bring about many changes in methods of treatment

of gunshot wounds hitherto accepted by doctors the world over.

Among the new discoveries of surgery demonstrated to the assembled doctors was the use of a rubber balloon employed as a stoppage to the chest cavity after a major operation.

Professor Raffaella Bastianelli, professor of surgery at the University of Rome, showed how this bag might be inserted into the chest cavity and then inflated, to prevent infected air from entering the chest walls. According to Professor Bastianelli, this new device may be used to patch up a wounded man, much as an automobilist uses a rubber plug to patch up a leaking tire.

Colonel Duval said pieces of a torn lung may be excised and sutured with perfect safety to the patient in the hands of a skilled surgeon.

"The method," he said, "is to saw out a six-inch section of the fourth rib and lay bare the entire chest cavity. Then, with thoroughly sterilized forceps, the lung is lifted from its normal position. Great care should be taken not to cut into large vessels of the lung. Finger tips serve for eyes. The surgeon can manipulate the soft tissues of the respiratory organ as though it were a handkerchief.

"Of course, the lung is totally collapsed while this is being done. The walls are then opened and thoroughly cleansed. When large blood vessels interfere, a piece of gauze is inserted in the tracts and run over the surface until they are thoroughly cleansed. It is not an exaggeration to say that the lung is literally swept out.

"After the battle of the Somme, records were kept of 300 lung cases treated medically. Twenty-eight per cent. of the men died. Of a similar number treated surgically, only eight and one-half per cent. died. Doctors need no longer have fear of cutting into the chest cavity and performing the most delicate operation. Wartime surgery has completely done away with old-time notions. We have entered upon a new era of medical science."

That the Germans are far behind surgeons of England, France, and Italy, was indicated by figures supplied by Colonel Duval. These figures showed that in fifty-nine operations upon the lung performed by a "renowned" German surgeon, forty-nine of the patients died.—(*N. Y. Times*, Oct. 30, 1918).

Editorial.

Complications.

The complications of influenza are numerous. The pulmonary complications are the most important. The persistence of the high fever, after several days, the dry cough, and the evident increase in adventitious sounds over the chest, are enough to make the physician suspect influenzal invasion of the lower bronchial radials. To wait for the former physical signs of lobar pneumonia is to wait too long. Long before crepitant rales and dullness appear in periphery of the lobe, broncho-pneumonia of a confluent variety, in most cases, is advanced and the patient is toxic and in serious plight. The complications will need to be studied very closely. No doubt after the epidemic is over and various reports come in, much valuable information will be gotten explaining the bacteriology and pathology. One can not help, however, in the very shadow of a dreadful epidemic, with its high mortality of pneumonia cases, calling attention to the studies made upon pneumonia in the army camps last winter when so many soldiers died.

The streptococcus hemolyticus, the reader will recall, complicating measles and scarlet fever pneumonias, seemed to add to the high mortality.

Keegan (*Jour. A. M. A.*, Vol., 71, No. 13, page 1051), summarizes an interesting study of 2,000 influenza cases, by saying:

A rapidly spreading pandemic disease was first recognized at the U. S. Naval Hospital, Chelsea, Mass., August 28, 1918, the first patients coming from the receiving ship at Commonwealth Pier, Boston. It has been carried to this port from Europe, both by patients and by carriers. It promises to spread rapidly over the entire country, attacking between thirty and forty per cent. of the population, and running an acute course of from four to six weeks in each community.

This disease is characteristic of the ordinary endemic influenza, but is more severe and much more contagious. It is caused by a specific virulent strain of the influenza bacillus, against which individuals of the younger generation have no immunity.

In from five to ten per cent. of the persons afflicted, it develops into a massive and very fatal bronchopneumonia. This pneumonia is primarily caused by the influenza bacillus, this

micro-organism being recovered from 82.6 per cent. of the lungs at necropsy, in 31.6 per cent. of which it is found in pure culture. The pneumonia is frequently complicated by *pneumococcus* or *streptococcus* infection.

The disease is characteristic of a sudden and severe toxemia, the influenza not being in the blood at any stage. It is not due to a filtrable virus. This was determined by introduction of the filtrate of nasal and throat washings from two typical cases into the anterior nares of nine volunteers, the results being negative.

A. G. BROWN.

Pneumonias Complicating Influenza.

Following is an extract from a circular letter issued October 24th, to the doctors of the state, by Dr. R. W. Garnett, acting Health Commissioner, regarding use of antistreptococcus serum in pneumonia:—

Doubtless you will be interested in knowing that further study of the pneumonias following or complicating influenza here in Richmond confirms the earlier conclusion that about seventy-five per cent. are of the broncho or lobular type, with the streptococcus as the predominating organism in a mixed infection. While the data is still inconclusive, the consensus of medical opinion here is that antistreptococcus serum given early intravenously in from twenty to fifty c. c. doses, at eight-hour intervals, is of decided value, and is saving some cases that would otherwise be lost.

The blood count is of inestimable value in these pneumonias. The cases showing a low total leucocyte count are, as a general rule, the ones indicating the need of the antistreptococcus-serum. Where the count is high it is considered that the pneumococcus is the predominating organism, and that antistreptococcus serum is not indicated. In some of the latter class, antipneumococcus serum is being used.

Where it is impossible or impracticable to secure blood counts, it is believed that physicians are justified in using the antistreptococcus serum in those cases in which there is conclusive evidence of the broncho type of pneumonia.

There is relatively little danger of anaphylaxis from the use of this serum, except in cases with an asthmatic history, or with those who have within the preceding two or three years been sensitized to a foreign serum by having been given diphtheria or tetanus antitoxin.

It is suggested that in instances where there

is reason to fear anaphylaxis, the following precautions be taken:

First, precede with 1/8 of morphine and 1/100 of atropine hypodermically.

Second, have ready for immediate use, in case of need, a hypodermic containing a solution of adrenalin, 1 to 1,000.

Third, that one c. c. only of the serum be injected, and then wait for ten minutes to determine if shock occurs. If within this time no contraindications develop, the remainder of the dose may be used. There is danger of anaphylaxis only with the first dose. Where chill occurs following injection of serum, morphine, hypodermically, and hot blankets are indicated.

News of M. R. C. Officers.

Lt. J. P. Bowles, of this city, left November 2, for his new duties at the naval base training school at Buffalo, N. Y.

Lt. George T. Divers, formerly of this State, but for the past few years of Mount Airy, N. C., was a recent visitor in this city.

Dr. Alvin F. Bagby, of Petersburg, has received his commission as first lieutenant in the medical corps of the army, and has been ordered to report to the "British Corps," located at Camp Polk, near Raleigh, N. C.

Dr. R. S. Fitzgerald, of this city, has received his commission as captain in the medical corps, and left recently for Camp Greene, N. C.

Lt. John W. Robertson, Onancock, Va., received orders to report at Ft. Oglethorpe, Ga., November 8.

Dr. A. P. Derby, Monrovia, Va., who enlisted last year, has been commissioned a captain in the medical corps and left for Ft. Oglethorpe, Ga., the latter part of October.

Dr. H. B. Mahood, who has charge of the medical reserve corps of the University of Florida, recently spent a short furlough at his home in North Emporia, Va.

Dr. E. C. Levy, former city health officer of Richmond, who entered the service last August as a captain, has been promoted to the rank of major. He is epidemiologist at Camp Pike.

Major C. C. Coleman, of this city, has been made director of the School of Neuro-Surgery at Ft. Oglethorpe, Ga.

Dr. J. S. Weitzel, this city, who has been commissioned lieutenant in the medical corps, left early this month for New York City, where he is stationed at the Neurological Institute.

Dr. John W. Martin, of Roanoke Rapids, N. C., visited relatives in Gordonsville, Va., the latter part of October, *en route* to camp at Jacksonville, Fla.

Dr. C. Wilbur Mercer, of this city, now stationed at Camp Custer, Battle Creek, Mich., as an orthopedic surgeon, has been promoted to the rank of captain.

Dr. Dandridge P. West, Norfolk, who was commissioned lieutenant in the medical corps of the Army, was ordered to report October 31, to the Base Hospital, Camp Zachary Taylor, Louisville, Ky.

Major George E. Barksdale, formerly of this city, is now on duty at the post hospital, Ft. Monroe, Va.

Capt. J. W. Walters, Lynchburg, Va., who recently went to Camp Greenleaf, Ga., has been selected as one of nine surgeons to make a special study of head surgery there.

Dr. E. J. Nixon, Petersburg, Va., received a commission as captain in the medical corps of the Army, with orders to report at Ft. Oglethorpe, Ga., for duty, early this month.

Dr. J. D. Osborne, Petersburg, has also been commissioned captain in the medical service of the Army.

Dr. L. S. Early, Petersburg, has been commissioned a lieutenant in the service.

Capt. M. C. Sytle, of this city, has been transferred from Ft. Oglethorpe, Ga., to Ft. Benjamin Harrison, Ind.

Those interested in the personnel of Base Hospital No. 45, largely made up of Richmond doctors, under the command of Lt. Col. Stuart McGuire, of this city, will be glad to know that the men are doing a good work "over there." They have been on duty twelve miles from the firing line, where the roar of guns may be plainly heard. It is the first base hospital to be sent so near the front.

Lt. Charles R. Irving, formerly of Howardsville, Va., who was gassed in action in France, has been sent to Asheville, N. C., to recuperate. His condition is now much improved.

Married

Dr. William Ashton Reese, formerly of Grace Hospital, this city, but now lieutenant in the U. S. Navy, and Miss Helen Parrish, of Fluvanna County, Virginia, October 19. They are making their home at present in Norfolk, Va.

Dr. Robert Lemmon and Miss Mary Withers Bigbie, both of Lynchburg, Va., November 5.

Dr. Ira J. Haynes,

Formerly connected with the W. B. Saunders Company, is now located at 3418 East Broad Street, this city, and engaged in the active practice of medicine.

Lt. Col. Alfred P. Upshur, M. C.,

Son of Dr. and Mrs. John N. Upshur, this city, has been made a fellow of the American College of Surgeons. His name was submitted by the Surgeon-General as one who had performed special service with merit during the present emergency.

Convalescent Home For Naval Officers.

The Surgeon-General of the U. S. Navy has designated the hospital at Elizabeth City, N. C., as a convalescent home for naval officers. A contract was signed with Dr. John Saliba, owner of the Elizabeth City Hospital, specifying that a minimum number of fifty officers of the navy would be constantly stationed there. The hospital was ready for convalescent officers of the Navy November 1.

Dr. and Mrs. Alvah S. Hudson

Have returned to their home in West Point, Va., after a short trip to Baltimore.

Dr. Milton B. Coffman,

Of this city, who went overseas as a lieutenant in the medical corps of the Army, last summer, and who was recently slightly wounded in action, has been awarded a military cross for gallantry in action.

Dr. James Weldon Smith,

Who has been located on a rural route from Farmville, Va., has moved into Farmville, and will make his home there.

Mexico Visited by Influenza.

Spanish influenza, with which our country was so afflicted in October, also visited Mexico, and was epidemic in practically all parts of that country. The mortality in most places was low. Probably the worst center of infection was at Gonzales, where eighty per cent. of the population was said to have suffered with the disease and the deaths numbered several hundred. Public gathering places were likewise closed in Mexico during the height of the epidemic.

Dr. Peter Winston,

Farmville, Va., was a visitor in this city early in the month, having come to attend the regular meeting of the State Board of Charities and Corrections held here.

Dr. Samuel Saunders, Jr.,

Formerly of this State, but who has for some time been in the U. S. Public Health Service in Georgia, has recently been transferred to Washington, D. C., and detailed to special work in that section.

Dr. William P. Caton,

Formerly of Accotink, Va., is now connected with the State Board of Health, with present headquarters in Alexandria, Va.

Large Number of Deaths from Influenza and Pneumonia.

The Bureau of Census shows a tremendous mortality in the United States from influenza and pneumonia. Total deaths in forty-six of the largest cities reporting to the Bureau were 59,089 for seven weeks ending October 26. Of these, 36,032 were from influenza and 23,057 from pneumonia.

The highest death rate in the country reported that week was from New Orleans, with Baltimore a close second. St. Paul reported the lowest rate.

Dr. James R. Speight,

Who has for some years been one the city physicians of Norfolk, Va., has been appointed police surgeon in that city to succeed Dr. C. D. J. MacDonald. Dr. MacDonald, who succeeded Dr. Stark A. Sutton, recently resigned.

Dr. William B. Daniel,

Disputanta, was one of the delegates appointed by Governor Davis, to represent Virginia at the tenth annual meeting of the Southern Appalachian Good Roads Association, in Asheville, N. C., November 19-21.

Emergency Hospital Opened at Clifton Forge.

During the influenza epidemic last month, an emergency hospital was opened at Clifton Forge, Va., and in the first twenty-four hours after opening, fifteen patients had been received. Dr. H. S. MacLean, of Grace Hospital, this city, was temporarily in charge.

Dr. and Mrs. F. E. Hamlin

Have returned to Staunton, Va., after visiting their former home in North Carolina.

Dr. E. W. Peery,

Lynchburg, V., was selected as a delegate to represent the Southwest Virginia Synod at the United Lutheran Convention in New York, November 14.

General Gorgas Honored.

Surgeon-General William C. Gorgas, U. S. Army, has been made a grand officer of the Order of the Crown of Italy, in recognition of his services in military sanitation.

Railroads Asked to Cease River Pollution.

The Merchants Association of New York City has addressed a letter to the Hon W. G. McAdoo, Director General of the U. S. Railroad Administration, asking for the abandonment of the unsanitary practice of discharging the contents of toilets from trains upon the road-beds of the railways of the country. This reform has been under discussion at various times but, on account of the difficulties of interstate management and health regulations, no definite progress has been made to protect the public health from this particular danger. Federal control of the railroads should make possible the adoption of a general plan in this direction.

This is a matter which might well receive the attention of health officers at this opportune time. The need of a law to overcome this menace is apparent.

Dr. Frederick J. Kellam,

Of Louisa County, Va., has recently been visiting relatives in this city, while recuperating from an attack of Spanish influenza.

Dr. W. B. Ashburn

And family returned to their home in South Norfolk, Va., the last of October, after an automobile trip through Virginia.

Dr. E. J. Moseley, Jr.,

And family, of this city, have returned from a short visit to friends in King and Queen County, Va.

Dr. W. A. Baker,

Big Stone Gap, Va., was called to Baltimore, last month by the illness of his two daughters, who were in training at the University Hospital, in that city. We regret to note that one of them died.

Dr. and Mrs. Elliott DeJarnette

Have returned to their home in Ashland, Va., after a visit to Blacksburg, Va.

Southern Medical Meeting Postponed.

Like other "best laid plans o' mice and men," the meeting of the Southern Medical Association, scheduled for Asheville, N. C., November 11-14, likewise had to be postponed. Officers of the Society expect to have the greatest

meeting in their history, next year, however, to make up for this postponement.

Dr. Susan A. Price,

Recently of Hopewell, Va., is now located at Farmville State Normal School, as resident physician.

Dr. Mary Evelyn Brydon, formerly in this position, is connected with the State Board of Health, with headquarters in this city.

Dr. R. T. McNair

Has returned to his home in Emporia, Va., much improved, after being under treatment in a hospital in this city.

To Improve Conditions.

The City Council of Fredericksburg, Va., has appropriated \$5,000 to be used under the supervision of doctors of the U. S. Public Health Service, in improving certain health and sanitary conditions of that city. The work has already been commenced.

Dr. and Mrs. Thomas W. Murrell,

Of Richmond, spent a short time at Old Point Comfort, Va., in October.

Dr. Perkins Glover,

Arvonias, Va., was a visitor in this city, the latter part of October.

Hotels as Hospitals.

The hotels of the French Riviera, once the mecca of the pleasure seekers of the world, are being converted into hospitals for the American wounded.

Dr. T. Brantley Henderson,

Formerly of Henderson, N. C., has moved to this city, and is located in the Professional Building. He will limit his practice to diseases of the Eye, Ear, Nose and Throat.

Dr. Henderson is not a stranger in Richmond, having been a graduate of the Medical College of Virginia, here, in 1906.

Obituary Record.

Dr. Henry W. Dew.

The first member of the Lynchburg, Va., medical profession who gave his life to save others in the influenza epidemic was Dr. Henry W. Dew, his death occurring October 18. Although not physically strong, he worked day and night until forced to give up. Against the advice of his physician and friends, he arose from his sick bed to visit his patients,

relapsed, and pneumonia followed with its grim sequela—death.

Dr. Dew will be a loss to the profession of his city and state. He was a man of ability and attainments, highly educated, a true friend and courteous gentleman. He always stood for the highest ideals in his profession. In all papers read before medical societies, he showed deep thought and research work, making his points clear and full. In participating in discussions of subjects, he possessed an analytical mind, concise and sound judgment.

He was honored by his profession by having been president of the Piedmont Medical and Lynchburg and Campbell County Societies. He was a member of the State Board of Medical Examiners, chairman of the Board of Epileptic Colony. It might well be said of him, "Well done, thou good and faithful servant."

Dr. Dew was fifty-six years of age and a graduate of the College of Physicians and Surgeons, Baltimore, in 1886.

C. E. BUSEY.

Dr. Edward Virgil Copeland,

Son of Dr. and Mrs. J. E. Copeland, of Round Hill, Va., died at his home in that place, October 15, of pneumonia following influenza. He was born in Rectortown, Va., June 9, 1882, and studied medicine at the Universities of Virginia and Maryland, graduating from the latter school in 1905. He took post-graduate work in London, Paris, Vienna, and more recently in New York. He was one of the physicians of Loudoun County Examining Draft Board and was identified with his local and several other medical societies. In addition to his parents, he is survived by his wife, small son and a sister.

Dr. Copeland was recognized as a physician of ability and was much beloved in the community in which he lived and practised.

Capt. Lawrence Edward Flannagan, M. C.,

A brother of Dr. Roy K. Flannagan, of this city, died at the home of his father-in-law, in Charlottesville, Va., November 6, after an illness of several weeks with influenza and pneumonia. He was a native of Charlottesville, and 54 years of age. Dr. Flannagan received his medical education at the University of Virginia and graduated in 1884. He served as interne at Retreat for the Sick, Richmond, and at Blackwell's Island Hospital, New York, and was also at one time demonstrator in anatomy

at the University of Virginia. When taken sick, he had passed all the physical and mental tests at Camp Greenleaf, and had been assigned to overseas duty. He had been sick in the hospital at Camp Greenleaf for a little while before obtaining leave of absence to return to his home.

Mrs. Harnsberger.

The many friends of Dr. Stephen Harnsberger, Catlett, Va., ex-president of the Medical Society of Virginia, will learn with regret of the death of his wife on October 29, and of their only daughter, Mrs. W. B. Weaver, on October 20. Both deaths were due to complications resulting from influenza.

Mrs. Harnsberger had attended several of the medical meetings with her husband, in the past few years, and, by her gentleness and sincerity of manner, had won for herself many friends.

Dr. John Marye Lewis,

A well-known physician of Manassas, Va., died October 14, of pneumonia. He was born in Manassas, thirty-seven years ago, and, after completing his academic education at William and Mary College, studied medicine at the University of Virginia, from which he graduated in 1905. He is survived by a sister and brother.

Dr. Walter Stevenson Slicer,

Roanoke, Va., who only recently joined the medical corps, U. S. Army, died in a camp near New York, October 21. He was born in Montvale, Va., thirty-eight years ago, and studied medicine at the University College of Medicine, Richmond, graduating in 1904. He had for several years been surgeon-in-charge of the Shenandoah Hospital, in Roanoke, and was one of the surgeons of the Norfolk and Western Railway. His wife survives him.

Dr. William Waller Vest,

A prominent physician of Clarksville, Va., died October 25, of pneumonia. He was born in Williamsburg, Va., forty-four years ago, and studied medicine at the Medical College of Virginia, Richmond, from which he graduated in 1901. He is survived by his wife, several children and a large family connection.

Dr. Alfred Leigh,

Of Colvin Run, near Vienna, Va., died October 30. He studied medicine at the Medical College of Virginia, from which school he

received his diploma in 1880 and became a member of the Medical Society of Virginia several years later.

Dr. Vernon Liles Andrews,

Mount Gilead, N. C., a graduate of the University College of Medicine, Richmond, Va., in 1909, born December 27, 1884, died at his home, October 13, from Spanish influenza. He was a member of his County, State, the Southern Medical and the American Medical Associations. He had just completed an elegant residence and one of the most modern detached office buildings in that section of the State. He enjoyed a large and lucrative practice and his death was doubtless due to the fact that he continued his work for two days after being stricken with influenza.

Dr. George Christman Rodgers,

A prominent surgeon of Elkins, W. Va., died October 26, aged 46 years. He was a native of Highland County, this State, and studied medicine at the University College of Medicine this city, graduating in 1900.

Dr. Albert T. Chambers,

Baltimore, Md., died October 14, aged forty-two years. He received his academic education at Randolph Macon College, Ashland, Va., after which he studied medicine at the University of Maryland, from which he graduated in 1898. At the time of his death, he was professor of Clinical Surgery in this school.

Dr. U. F. Bass,

A colored physician of Fredericksburg, Va., who volunteered for service, was commissioned a first lieutenant in the medical corps of the Army, and sent overseas last spring, died in France recently as a result of wounds. He was in the firing line, engaged in dressing wounds of soldiers when a shrapnel shell exploded close by, tearing off both his legs. He leaves a wife and four children. Dr. Bass was thirty-eight years of age, a graduate of the Leonard Medical School, in Raleigh, N. C., in 1906, and was highly respected in his home town by white and colored.

Dr. William F. Kabler,

A prominent physician of Bristol, Va.-Tenn., died October 11, following a short illness of pneumonia resulting from influenza. He was thirty-nine years of age and had studied medicine at Lincoln Memorial University, Knoxville, from which he graduated in 1904. His wife and two children survive him.

Dr. Richard Daingerfield Bagnall

Died in Hampton, Va., November 1, and was buried in Norfolk. He was eighty years of age and a graduate of the University of Pennsylvania, School of Medicine in 1860. He was a surgeon in the Confederate army.

Dr. Bee Bartow Halsey,

A native of Orange County, Va., and graduate of the University of Maryland, School of Medicine, in 1885, died of pneumonia, at his home in Winkelman, Ariz., October 19, aged 56 years.

Dr. Leo Smith Petersen,

Of New York City, national president of the Chi Zeta Chi Medical Fraternity, died October 22, of pneumonia following influenza. He was thirty-one years of age and took his medical diploma from Columbia University, College of Physicians and Surgeons, New York, in 1911.

Dr. Thomas S. D. Grasty,

A native of Fredericksburg, Va., but who had been practising in Washington, D. C., since his graduation from George Washington University Medical School, in 1901, died October 18, as a result of influenza. He was thirty years of age and is survived by his parents.

Dr. George O. Quesenberry,

Hinton, W. Va., died October 22, as a result of influenza. His body was carried to Orange, Va., for burial. Dr. Quesenberry, who was a graduate of the College of Physicians and Surgeons, Baltimore, in 1887, was fifty-five years of age. He is survived by his wife and several children.

Dr. William Karp,

Portsmouth, Va., but who was serving in the medical corps of the Army, died at Camp Meade, Md., last month, and his body was brought to his former home for burial. He was a graduate of the Medical College of Virginia, Richmond, in 1915, and was 31 years of age.

Dr. Willis Alston, Jr.,

Littleton, N. C., and his sister, died in a few days of each other last month, of Spanish influenza. He was 39 years of age and a graduate of the University of Maryland, School of Medicine, Baltimore, in 1903.

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Original Communications.

PLEURISY AND EMPYEMA FOLLOWING INFLUENZA AND PNEUMONIA.*

By G. PAUL LaROQUE, M. D., F. A. C. S.,
Richmond, Va.

In the wake of the recent epidemic of influenza which, though of diminished virulence, in diminished numbers and attended by less excitement, is still prevalent, there are being discovered a goodly number of cases of suppurative pleuritis. Of the patients with influenza complicated by pneumonia we may expect to find 10% to be followed by empyema of the thorax. Within the past 10 days I have personally operated upon four such cases and several others have come under my observation.

The pleuritic complication is less dramatic in its symptomatology and clinical course than the empyema consequent upon ordinary lobar pneumonia; its onset is comparatively insidious and unattended by the violent pain and respiratory embarrassment of ordinary pleuritis. This is all the more reason for conducting a more diligent search through repeated examinations for its detection, for, though less dramatic, it is equally pernicious in its effect and has invariably led to the clinical picture of debilitating sepsis. About 90% of the cases of so-called "unresolved pneumonia" are in reality cases of pleuritis and empyema. Following each epidemic of pneumonia, more and more pleuritic suppuration and fewer and fewer cases of "unresolved pneumonias" are being found. The frequency of this complication and sequel has

been found to increase directly in proportion to careful and skillful examinations for their detection. Careful daily physical examinations of the chest for a reasonable length of time following apparent recovery from influenza and pneumonia supplemented by exploratory puncture with a needle sufficiently large to evacuate thick pus, will detect many cases in patients who are slow in recovering. Concerning the treatment, if there is any method of preventing pleuritis it is not familiar to me personally nor have I encountered any reference to it in current literature. But from the study of the abundant reports on empyema in the cantonments during the winter of 1917-18 as recorded in the current journals, and supplemented by considerable experience of my own, it can be emphatically stated that the disease is easily cured by a simple and safe surgical procedure performed painlessly under local anaesthesia.

A careful study of large and small series of case reports from current literature reveals quite conspicuously that the simple intercostal incision has uniformly yielded a greater percentage of speedy and complete cures than has rib resection and with much less risk of persistent sinus, crippled lung and extensive secondary operations, than rib resection entails.

Moreover, we have learned with no small satisfaction that watchful waiting for the subsidence of the causative pneumonia and the proper encapsulation of the pleural exudate until it is accessible to needle puncture exploration is attended by much less danger to life and followed by much more complete cure than has been demonstrated by the 50% mortality of expert exploratory thoracotomy through a part of the pleural cavity not suppurating, to

*Read at a symposium on Influenza, at the Academy of Medicine and Surgery, Richmond, Va., November 26, 1918.

reach a small collection of pus walled in between the lobes or in some crevice not in contact with the parietal pleura.

The operation for empyema is almost never an emergency one as measured by hours, and within reasonable limits is attended by diminished mortality with increase of its duration in days up to 6 or 8 weeks. This does not argue for delaying operation longer than is necessary for pneumonia to subside and light pleuritic adhesions to form, but plainly demonstrates the wisdom of self-restraint in "emerging" with radical operation upon patients with pleuritis. The principles of the physiological treatment of pleuritis are not unlike those uniformly applied in the management of peritonitis preparatory to operation and such treatment is equally efficient. The clinical course of pleuritis is much less rapid than peritonitis. Rest in bed, opiates to enforce rest to the respiratory apparatus, local applications to the chest and other palliative remedies, will practically always carry the patient safely to a period when the pus will be easily accessible and satisfactorily walled off, fever almost or quite absent, pneumonia resolved and the patient in the best general condition for carefully planned and sane operative management as follows:

Through the physical signs we have been able to determine the point at which the fluid seemed to be present. In our experience it has been within an area of about 3 inches in diameter with its center corresponding to the seventh or eighth interspace just posterior to the axillary line. A large aspirating needle attached to a large "Record" syringe provided with a double stop cock for withdrawing and expelling the fluid, is plunged through the chest wall generally without anaesthesia and as much of the fluid as practicable is removed. In young children, unless the pus is thick and yellow, this has been all that was necessary. In older children and adults, we commonly irrigate through the needle by drawing up saline solution through the other tube attached to the double stop cock, reinjecting and evacuating two or three times until the saline returns clear. This has been all that was necessary in about half the cases. In others, especially in adults, when thick pus is aspirated, we have plunged a large size gall-bladder trocar through the interspace and irrigated through this with hot

salt solution or a weak solution of tincture of iodine.

If in a few days or a week the patient is not entirely well we proceed to thoracotomy through a linear incision in the interspace under local anaesthesia (in children a few whiffs of ether are administered). Through this incision the cavity is irrigated until the fluid returns clear and two small calibre rubber tubes pinned together to avoid being sucked into the cavity are sutured to the skin. In from one to three weeks healing is complete. Even in cases of large collections of pus, rib resection should never be necessary and should never be performed as a primary operation.

The records show that the experience in the cantonments with rib resection was most distressing and in many of the cantonments the operation has been forbidden by military command. The 33 1-3 to 50% mortality of rib-cutting should of itself be prohibitory when compared to the 10% or less mortality of the disease followed by intercostal incision. The morbidity of rib resection is even greater than the mortality and in some of the cantonments it was reported that none of the men were ever able to be returned to duty whereas following the intercostal incision, complete cure and return to duty was the rule. As a matter of fact, for those cases in which simple intercostal incision has proven inadequate for cure, intercostal thoracotomy through a long incision and wide separation of ribs through spreading, according to the technique of Lilienthal, as a second operation, may occasionally be necessary.

Throughout the entire course of the disease the patient is kept in the open air and sunshine, according to standard practice employed in the management of all respiratory and septic affections.

Our experience justifies us in the belief that the treatment as outlined above is without danger to life, without necessity for general anaesthetic except in young children, and is nearly 100% efficient in the cure of pleurisy and empyema and about 90% efficient in the cure of so-called "unresolved pneumonia".

Abstracts of our case records are in printed form and available upon request. Fifty per cent of the cases have been in adults and 50 per cent in children varying from 15 months to 15 years. All the cases operated upon were

secondary to pneumonia, though we feel that a few of these cases also had latent tuberculosis of the lung, and in one case the thoracic pathology was due to appendiceal abscess. One infant of 15 months died two weeks after simple aspiration and injection of formalin and glycerine, from dilatation of the stomach, as a part of some gastro-intestinal affection.

Concerning post-influenzal empyema, we believe that no case ought to die, that no case should have the ribs cut, that all cases should be cured through drainage and post-operative irrigation through a simple intercostal incision and that complete restoration to health should be prompt.

603 East Grace Street.

OBSERVATIONS ON HYPERTROPHY OF THE PROSTATE GLAND.

By L. SEXTON, B. S., M. D., New Orleans, La.

Some one has said that the function of the spleen, in malaria, is to enlarge. The same might be said, with equal truth, of the prostate gland in old men, as sixty-five per cent. suffer from varying degrees of enlargement. The derivation of the word, from the original Greek, is to *stand before*, and this is literally what the gland does before the urethral orifice.

Gross Anatomy: The prostate gland is made up of two lateral and one middle lobe, surrounding the neck of the bladder, and forming the prostatic portion of the urethra. The gland is composed of muscle, glandular tissue and stroma, all of which tissue is very susceptible to hypertrophy and growth. Some have contended that this enlargement comes mostly from the sub-urethral gland on the vesical side of the ejaculatory ducts, a neoplastic adenomyoma or fibromatous tumor, very similar to the fibroids of the uterus, originating in the walls of the sinus-pocularis. These tumors may be single but are often multiple, and may be shelled out of their beds in operating very much as an onion is peeled out of its rind.

There are three clinical varieties of hypertrophy; adenomatous, fibrous and malignant. The first type causes the greatest enlargement and mechanical obstruction to the urinary flow, which necessitates the surgical removal of the gland in the great majority of cases. The malignant type may be either epitheliomatous, carcinomatous or scirrhus, and consti-

tutes about ten per cent of the cases. Occasionally prostatic tumors are pedunculated. When the enlargement is confined to the lateral lobes the obstruction to the flow of urine is greatest; the enlargement of median lobe puts a barrier across the urethra, converting the meatus into an upward-shaped crescent. All three lobes enlarging simultaneously push the meatus into a Y-shape. If you bisect the average enlarged prostate gland, you will find that it is composed of numerous prostatic tumors and muscular tissues, that have made a capsule for themselves either out of the surrounding stroma or of the mucous membrane of the bladder wall. The normal prostate, in the average adult at twenty-one years of age, should weigh a little less than an ounce. The average weight of tumors removed is about three ounces, while in some cases they have weighed as much as twelve ounces. The tendency of the tumor is to grow upwards and backwards under the vesical mucous membrane, causing a considerable lengthening of the urethra, so much so that the length (of eight inches) of the normal urethra may be increased to sixteen inches.

Causes: The causes of enlarged prostate are sexual excitement, age, horse-back and other rough riding, infections (gonococci), exposure to cold and damp, stone in the bladder, and other irritations and pathological developments of tumors in the prostate gland from constant sexual congestion. While the enlarged prostate is mostly confined to men passed fifty years of age, young men, who are high livers and of bibulous habits, constantly infecting themselves with gonorrhœa, may also have their prostates enlarged. Occasional causes are abscesses and cystitis.

Symptoms: The growth of the tumor up and under the mucous membrane of the bladder produces a pouch, which contains residual urine, and in many cases is the seat of a beginning cystitis. The straining effort to get rid of the residual urine causes the bladder muscles to thicken at first, but afterwards, atrophy of these muscles may occur as a result of the continuous dilatation of the bladder. Incontinence of urine may also be expected after the bladder has been dilated to the utmost for a long period. This residual urine undergoes ammoniacal decomposition, irritates the bladder wall, causing a constant desire to pass

urine, especially at night, while in the recumbent position. Sleep is interfered with, and more than this—the back pressure from the distended bladder and ureters causes a reverse current and dilatation in the ureters, carrying infection and congesting the kidneys, and, sometimes, producing pyelitis. Phosphatic calculi may form and become encysted in the bladder or prostatic wall and produce no particular trouble, beyond adding to the vesical irritability, but if the stone remains loose in the bladder, it adds more obstruction to the outflow of urine. The bladder wall, as a result of its distention, may lose all its propulsive power, causing the urine to be voided very slowly or to dribble away. If chronic nephritis results from the infection, the amount of urine is increased, and the necessity of voiding it more frequently seems to add insult to injury. The stream of urine may not be smaller than normal, but there is less force to propel it. The residual urine is alkaline from phosphates; and muco-pus, if it extends up to the kidney, is a common cause of pyelitis or uremia. Over indulgence in drink, abuse of the sexual function and exposure to cold and damp may bring about a crisis in which the urine is suddenly stopped. Straining opposes, rather than helps, the expulsive effort. We cannot always determine the amount of obstruction by the size of the prostate. Obstruction of the rectum and constant straining, while urinating, cause hemorrhoids; and very large prostates may so press upon the rectum as to retard its function.

Diagnosis: A patient having to void his urine six times, or more, during the night, and as often during the day, if passed the age of fifty, comes either in the nephritic or enlarged prostate class. This frequency may not be so noticeable during the day, due, of course, to the upright position. The enlarged prostate can always be felt by a thorough digital examination of the rectum. Dullness on percussion over the pubis, caused by a distended bladder, indicates prostatic obstruction. (Enlarged prostates are often responsible for a vicious circle established in old men and evidenced by priapism, sexual perversion and gross indecency.) Relaxing the sphincter is necessarily slow when beginning to urinate; acute retention makes catheterization imperative. Cystitis and renal symptoms soon follow in close suc-

cession. The last urine squeezed out of the bladder usually contains pus and blood, also albumen from the prostatic fluid with which it is mixed. Casts will also be found if the kidneys are involved. A cystoscope occasionally aids in diagnosis.

When urinary expulsion is impossible, and a catheter life becomes necessary, the patient, before being permitted to catheterize himself, should be carefully instructed in asepsis and the use of a web or rubber catheter. The gum or web catheter is preferable for the patient, but the doctor usually prefers the metallic instrument, as it serves as a long finger to help him diagnose a stone in the bladder, the amount and extent of obstruction, together with increased length of the urethra. In order to enter the bladder, the doctor very frequently needs a variety of catheters, bent at different angles at the end (coudé) and of unusual length, and small in size, in order to relieve the distended bladder and, even then, it sometimes becomes necessary, in emergency cases, to use supra-pubic trocar and cannula. With the best instructions, in the hands of the patient the use of the catheter very frequently leads to a regrettable infection. The chill and fever which may follow the introduction of the catheter are due to the absorption of the bacteria if the mucous membrane of the bladder is traumatized. A hypodermic of morphia is the remedy. However, we have known of many patients, who have been carefully instructed in the methods of keeping the instruments sterile and properly lubricated, living comfortable lives for many years by this palliative treatment alone. The use of the catheter should be limited to the preparation of the patient for an operation, and for the immediate relief of a distended bladder, and should not be recommended as a curative measure at all. As the doctor and nurse cannot always be present when it becomes necessary to void, it is important that the patient be carefully instructed in asepsis and lubrication of instruments as just mentioned. In evacuating the bladder (in enlarged prostates) the long curved silver catheter is preferable, but the stem has to be long and pressed far down between the thighs before the urine will flow, on account of the increased length of the urethra. If a patient can pass eight ounces of urine without a catheter, every four hours,

his kidneys and bladder may be considered functioning very well.

Treatment: This is prophylactic, palliative (catheter and supra-pubic drainage), and radical, or removing the gland. The usual internal remedies are five grains each of boric acid, salol and hexamethylenamin. Rest, which is very important in all bladder affections, is classed among the best palliative measures in the treatment of hypertrophied prostates. The catheter treatment is only recommended for the aged-infirm and diseased, who cannot undergo an operation, but must have their bladders emptied. Patients requiring a prostatectomy are usually advanced in years with a trinity of diseases—cardio-vascular-renal; hence, are bad subjects for any operative procedure. Residual urine, diseased bladder wall, infection and resultant cystitis add other serious obstacles to the operation. Septic catheter, stone in the bladder, pyelitis or other complications, all taken together, do not present a very promising picture for recovery after operation. The per contra of these unfavorable conditions, which weigh in the balance on the operative side, is that operations drain the infected bladder, relieve the pain and back pressure from the ureters and kidneys, and get rid of the residual urine, pus and stone, if present. Bladder irrigation can be done effectually, and all sepsis washed away, through a large drainage tube; and the constant risk of infection through a septic catheter is eliminated. We know of no desperate condition in surgery, for which more prompt relief can be obtained, than is afforded by a supra-pubic drainage of these foul bladders.

As a preliminary to any operation, rest in bed must be enjoined, and a diet of milk, cereals, vegetables and fruit instituted; all meats, condiments, salt, coffee, tea and alcohol should be avoided, the same as in kidney diseases. Many patients eighty years old have been operated upon successfully, and days of prolonged pain and inconvenience relieved, with many happy years added to their lives. The operative mortality, even in these old cases, should not exceed four per cent in the hands of competent surgeons. Irrigating the bladder with two ounces of (one to five thousand) nitrate of silver solution, introduced into the empty bladder, and allowed to remain, though painful, often works wonders in these cases; but

this should be followed by daily injections with two per cent solution of some of the organic silver salts, or with warm boric acid solution, until the bladder is relatively clean, before any operation is undertaken. Remember that ether, shock of operation or absorption of bacteria may unbalance diseased kidneys which are functioning sufficiently well to keep elimination ahead of the production of waste. Do not allow yourself to be hurried into operating upon these cases until they are thoroughly prepared, as only fools rush in where experienced surgeons hesitate. It is usually preferable to make two stages of the operation rather than to attempt to do too much at one sitting on these bad surgical subjects.

Operation: After antiseptically preparing the patient, an incision about two or three inches long is made in the median line just above the symphysis pubis, being careful not to open the peritoneal cavity. After the incision is made through the fat, the bladder wall can be seen in the space of Retzius; if the peritoneum encroaches upon the upper bladder wall, it should be held out of danger with a retractor. Two silk sutures are inserted into the bladder, on either side, to support its wall in position while the vesicle is opened and drainage tubes put in. If the bladder is not to be opened at the first operation, the wound is packed with iodoform gauze, and left for from twenty-four to forty-eight hours, when, after local analgesia, it is opened and a large drainage tube is inserted through this opening and held in place by sutures. Through this tube, or tubes, the bladder may be irrigated with hot boric acid solution, or sterile water, leaving the removal of the prostate gland to a later period, when the bladder is free from sepsis and the kidneys relieved of congestion. The condition of the patient is much more favorable for the second stage of the operation. To raise up the peritoneal membrane in this operation, the bladder should be distended either with air or with twelve ounces of boric acid solution, or by inserting a Peterson bag into the rectum and moderately distending it. The Trendelenburg position also assists in raising the peritoneum. The enlarged prostate can usually be shelled out by the finger, breaking through the mucous membrane at the meatus, following the line of cleavage with least resis-

tance. For the removal of the gland, the finger serves a better purpose than cutting or gouging instruments, which increase the risk of hemorrhage. A silver catheter should be held in the urethra by an assistant, as this enables the surgeon to determine the mouth of the urethra, which should be enlarged by the finger tip, while determining if the prostatic portion is yet intact. Among the chief dangers of operation at this period are shock and hemorrhage: the former should be blocked by a preliminary dose of morphine and atropine, and hemorrhage checked by direct pressure, a suture or packing with gauze. The end of the gauze should protude through the external opening, and may be removed whenever we are positive the hemorrhage is checked. On the other hand, the introduction of the finger into the rectum, and the application of direct pressure with gauze in a sponge holder, will usually prevent the necessity of using either bag sutures or styptics, which might irritate the bladder. Cuts into the prostate with Bottini's galvano-cautery, double castration, vasectomy, and ligating the internal iliaes to starve the growth of the gland, are now very rarely resorted to. Some surgeons prefer a horse-shoe perineal incision to remove small and fibrous prostates, on account of leaving the drainage in the most dependent portion of the wound, at the same time being able to use instruments in removing the gland.

Operating upon the glands, as suggested above, we have had many successes, and but few failures, in relieving these old men.

VAGOTONIA—A CONDITION OF INCREASED VAGUS TONUS.

By BEVERLEY R. TUCKER, M. D., Richmond, Va.

Professor of Neurology and Psychiatry, Medical College of Virginia; Physician in Charge of The Tucker Sanatorium, etc.

The latest and probably the most important advance in neurology for many years has been the separation of the *vegetative nervous system* by distinctive description, and the discovery of new facts in the physiology and symptomatic disturbance of its two sub-divisions—the sympathetic nervous system and the autonomic nervous system. Much of the credit for this work is due to Heinrich Higier, of Warsaw, and to Eppinger and Hess, of Vienna. To understand the clinical condition *vagotonia*, we shall, first, have to get a general idea of the results of the

recent investigations of the vegetative nervous system.

The vegetative nervous system is an outgrowth of the cerebro-spinal system and on all of its fibres are ganglion cells. The vegetative nervous system is distributed to the non-striated muscles of the body, the pupils, various glands and viscera, the heart, the blood vessels and the genital organs.

There are certain reflexes connected with the vegetative nervous system, such as salivation, sweating, flushing of the skin, and the genital reflex; also others, as disturbance of certain hollow organs, for instance, the stomach, uterus or bladder, through fear, pleasure or surprise. Referred visceral pains, hunger, nausea, the feeling of satisfaction upon emptying the bladder, are also experienced through the vegetative nervous system.

Pharmacological experiments have shown that adrenalin is a drug which acts only on the *sympathetic* division of the vegetative nervous system, and it does so by stimulation. A depressant agent for these sympathetic fibres is not yet known, although morphia does depress their nuclei situated within the central nervous system.* It has also been found out that pilocarpin and certain other drugs stimulate the *autonomic* system, while atropin, especially, depresses it.

The sympathetic division has been best known in the past and its anatomy is more or less familiar. All of the fibres of the vegetative nervous system not included in what is known as the "extended vagus" compose the sympathetic system. In the discussion of *vagotonia* we do not deal directly with the sympathetic division, but with the autonomic division of the vegetative nervous system. We must bear in mind, however, that in stimulation of the autonomic system there is more or less compensatory depression of the sympathetic division. The sympathetic and autonomic divisions innervate together and balance control.

*Note—This statement by Eppinger and Hess may be disputed by the following references, applying to apocodeine and nicotine:

Bastedo: Textbook of Materia Medica, Pharmacology and Therapeutics, 1914, page 104.

"It (apocodeine) is employed in the laboratory as a general paralyzant of sympathetic nerve endings. In this respect it is directly antagonistic of epinephrine. * * * It acts by cutting off splanchnic control of intestinal activities through the depression of the sympathetic nerve endings."

Cushny: Textbook of Pharmacology and Therapeutics, 6th Edition, page 435.

"* * * resembles nicotine in paralyzing the sympathetic ganglia."

Purves Stewart likens this antagonistic action to that of a pair of reins. Thus the sympathetic accelerates the heart and the autonomic inhibits it.

The autonomic nervous system consists of fibres and ganglia, but these do not form ganglionated chains like the sympathetic division. Their neuron cells are situated in the mid-brain, in the medulla and in the sacral region of the cord. Recognizing these centres, the autonomic system may be divided into the cranio-cervical and the sacral autonomic. In the cranio-cervical division the fibres follow and largely constitute the vagus nerve, but some of them run in the nervous intermedius and the glosso-pharyngeal. It is disturbance of the cranio-cervical part of this autonomic division of the vegetative system that gives the condition known as vagotonia.

With this brief insight into the new and wonderful field of vegetative neurology we shall proceed with the description of the definite clinical entity vagotonia.

"Vagotonia is a lasting tonic irritation of the vagal part of the autonomic system which maintains its end organs in a state which very closely resembles that produced by electrical stimulation of the autonomic," say Eppinger and Hess, and it is thought by them and others that this tone-irritation is due to, and kept up by the under or over secretion of one or more of the ductless glands. This offers splendid opportunity for future investigation.

Vagotonia includes much that was previously relegated to neurasthenia, hysteria, anxiety and fear states and general nervousness, and vagotonia practically takes the place of what were known as the visceral neuroses and the so-called vasomotor neuroses. Vagotonia accounts, in part, at least, for many asthmatic conditions, pseudoangina, vaso-motor gastric hyperacidity, pylorospasm, and has a definite relation to exophthalmic goitre, the nausea and vomiting of pregnancy, certain states of diarrhoea, especially mucous colitis, and to spastic constipation. Vagotonia also embraces some hitherto unexplained cases of bradycardia, arrhythmia, vague gastric distress and aerophagia. Vagotonia with tachycardia is often associated with visceroptosis and it should be remembered that vagotonia may be associated with other diseases, either organic or functional.

Vagotonia is a functional condition, the symptoms of which are numerous and may be major or subsidiary. Part of the extended vagus may be affected or practically the whole of the autonomic system at the same time.

An individual may be more or less uncomplicating but still be said to belong to the vagotonic type when he has gastric hyperacidity, eosinophilia, bradycardia, slight arrhythmia, somewhat spastic constipation and sweaty hands and feet. Persons of this type are said to be highly susceptible, especially with regard to salivation and sweating, to even small doses of pilocarpin.

Besides these symptoms, vagotonics may have irregular breathing and occasional tachycardia when associated with visceroptosis or hyperthyroidism, nervous and anxiety states, localized hyperhidrosis, flushings, nausea and other gastric distress, cool damp hands, acne, wide palpebral fissures and intestinal symptoms, as spastic constipation, alternating constipation and diarrhoea, or mucous colitis. These patients are usually constitutionally inferior. They often have enlarged tonsils and adenoids, husky voices, tremors of the hands, tongues and eyelids, and lessened sensibility to pharyngeal irritation. They urinate frequently and have an excess of phosphates and oxalic acid. These patients are startled by noises, easily frightened, apprehensive, often peevish or self-accusatory, sexually hyperexcitable and usually poor sleepers.

At times some or all of these symptoms undergo an acute exacerbation and we have a "nervous spell" or "attack," the description of which by the patient is usually vague. Gowers, years ago, described some of these "spells" under the name of vagal attacks. The attack consists chiefly of a marked increase in the apprehension and fear symptoms, sometimes to a sense of impending death, rigors or "nervous chills," prostration, acute functional cardiac, respiratory and gastric distress, often pains resembling visceral crises and marked sweating.

Fortunately for these acute attacks, as well as for the chronic states, we know a remedy which is specific—atropin. This drug depresses the over stimulated autonomic system and may be given in either tablet form or in solution. It may be administered under the skin or by mouth. Personally, for chronic cases, I prefer it in solution, by mouth, about 1/120 of a grain

of atropin sulphate three times a day. For the acute exacerbation, 1/100 of a grain may be given by hypodermic or on the tongue.

Going over my cases for several years, I find many unrecognized vagotonias. The condition is rather common, easy of recognition when once borne in mind and the treatment is satisfactory. Of course the atropin medication in some cases has to be backed up by constitutional, nourishing and psychic treatment. We have recognized many of these cases recently and the four following cases are briefly cited as being typical of some of the forms of vagotonia.

1. *Vagotonia as a chronic nervous condition.*

This occurred in a white married woman, 36 years old, who had been under many physicians who administered treatment of various sorts for what was called neurasthenia and hysteria. She had always been of a more or less high strung nervous temperament, but for three or four years had been much worse, complaining of fear of crowds, apprehensions, fear of being alone, fearing that she had taken too much or too little medicine, or that the medicine had or would have the wrong effect. She flushed easily, had sweaty cold hands and feet, arrhythmia, her pulse showing at times bradycardia and at times tachycardia. She had some hand tremor, spastic constipation, gas on the stomach and precordial distress.

She was put on atropin sulphate, 1/120 gr. three times daily, and recovered in several weeks. Her pulse became steadier, she ceased to flush, her constipation and stomach symptoms disappeared and she lost her fears.

2. *Vagotonia—Acute attacks.*

This case was a married white man, age 30, who had frequent attacks of bradycardia, chilliness, sense of impending death, great prostration, "clammy" hands and feet and dyspnoea. Similar attacks were described by Gowers, ten years ago, as vagal attacks. This man was apparently well between the attacks, which occurred every week or so and lasted several hours to a day.

He was seen by me in 1913 and put on various medicines without improvement until May, 1916, when he was put upon atropin sulphate, grain 1/120, three times daily, and his attacks ceased. A dose of atropin also cut an attack short.

3. *Vagotonia with marked local expression.*

This case was a young lady, 21 years old, who had acne, nervousness, apprehensions, flushings, hand tremors, slight bradycardia and profuse sweating of the hands and feet. She had experienced this hyperhidrosis since childhood, but it was worse under stress or excitement. Her hands perspired so that unless she held handkerchiefs in them, sweat would drop on the office floor at the rate of a drop every few seconds. Atropin helped this case and she did better still with atropin, calcium lactate and suprarenal gland extract, but the sweating condition was never really conquered, although her general nervousness and other symptoms practically disappeared.

4. *Vagotonia as a symptom complex in an organic disease.*

This patient was a single white man, age 54, who had a typical and well marked case of postero-lateral spinal sclerosis of specific origin. In addition to his organic symptoms, he had periods lasting from a few hours to many days of precordial distress, arrhythmic, chilly sensations, flushing, general sweatings, dyspnoea, prostration, nausea, emotionality, vertigo, apprehension and depression.

The opinion was given that the cardiac condition was functional and due to stimulation of the vagus nerve. This opinion was confirmed by Doctors VanderHoof and Hutcheson. Atropin 1/120 gr. three times daily, was given and controlled the attacks.

Many other cases could be cited, but these are mentioned as illustrative of the several types. The writer has never observed the condition in a negro. However, his practice among the negroes is not extensive.

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GALL-STONE DISEASE COMPLICATING PREGNANCY.

By AIMÉ PAUL HEINENK, M. D., Chicago, Ill.

During gestation, women are subject to many surgical conditions. The safety of the product of conception, the safety of the mother, demand that our knowledge of these surgical ailments be increased. Definite and accurate conclusions should be formulated as to the most opportune, most appropriate, and therefore the most scientific treatment of any and all surgical states complicating pregnancy. In previous contributions, we stated that every case of ectopic pregnancy, irrespective of type or

stage of development, calls for the immediate ablation of the ectopic ovum. Immediate operative removal of the ectopic ovum terminates the gestation and protects the mother from the morbidity and fatality incident to extra-uterine pregnancy.

In other contributions, we urged that every case of appendicitis complicating pregnancy be subjected to operation during gestation. Appendicitis is a surgical disease; when it complicates pregnancy, it calls for the immediate operative removal of the inflamed appendix, irrespective of the type of inflammation, irrespective of the age of the pregnancy. In women, previous to and during the child-bearing period, the non-operative treatment of appendicitis invites disaster, immediate, remote, or both. The timely removal of the inflamed appendix to a great extent protects the mother from the complications and sequelae, from the morbidity and mortality, incident to appendicitis. Operative removal of a diseased appendix does not interrupt gestation, does not exert any unfavorable influence on delivery.

The frequency of cholelithiasis makes this condition one of great practical interest. In the collective statistics of nineteen European and American authors, 80,802 necropsies, the frequency averaged 5.94 per cent (Hesse.) As the manifestations of gall-stone disease are often unrecognized, misinterpreted, or misdiagnosed, its incidence is greater than is supposed, is far greater than the number of reported cases would lead us to believe. It occurs in both sexes and at all ages, in the fat, in the lean, in the weak, and in the strong. The older the patient, the more liable is he or she to have gall-stones. "Gall-bladder disease is pre-eminently a disease of the middle aged female, but is by no means confined to that age or sex."—Deaver.

Gall-stone disease is of common occurrence during pregnancy, during the puerperium, during lactation. In fact, its greatest incidence is in the child-bearing period. Statistics have established beyond dispute that gall-stone disease, latent or manifest, is more common in women than in men. Out of 655 patients laparotomized for gall-stones, 536 were women, 119 men. (Kehr.) Of 1244 women operated upon for uterine myomata at the Mayo Clinic, 92, or 7.1% had gall-stones.

Statistics of 920 cases of cholelithiasis.
(K. Grube.)

	AGE						
	10-2	3-30	31-40	41-50	51-60	61-70	71-80
Male, -----	2	6	44	55	33	6	5
Female, -----	8	114	213	215	148	52	14
Unmarried							
Women ----	6	24	27	27	19	2	2
Married with children, ---	1	82	177	176	124	44	9
Married, without children, ---	1	8	9	12	5	6	3

Unquestionably child-bearing has something to do with the frequency of gall-stones in that state. Cholelithiasis may complicate a pregnancy otherwise normal; it has been found associated with ectopic gestation. (Brothers.) It occurs in primiparae, (Heineck), deutoarae, (Barillon), multiparae, VIII-para, (Roith), IX-Para, (Graham). Manifestations of cholelithiasis may precede, coincide with, or follow an abortion or a premature labor. In seven of the analyzed cases, there was a history of one or more abortions, accidental or induced; Watson, one; Villard, two; Peterson, six; Brothers, ten. Gall-stone disease may become manifest and necessitate operative relief at any period of gestation; 2nd month, (Bosse); 3rd month, (Roith); 5th month, (Mack); 6th month, (Moulden); 7th month, (Davis). In a large number of cases, the initial symptoms first occur during the child-bearing period. (Rudeaux). Our cases can be classified according to patient's age at time of operation as follows. The youngest was 21 years old, (Villard), the oldest 42 years. (Amann.) From 25-29 years, inclusive, 19 patients; 30-35 years, inclusive, 11 patients; 36-40 years, inclusive, 5 patients. Ploger reports cases in which there was a definite aggravation of symptoms during pregnancy; Naxera reports eight cases in which the first attacks of biliary colic occurred during gestation. "Seventy five per cent of gall-stones are found in women and in 30 per cent of these patients, the symptoms developed during pregnancy." (Torrance). Gall-stones are more commonly found in women who have borne children than in those who have remained sterile. Osler, quoting Naunyn states that 90 per cent of women with gall-stones have borne children. "Eighty-four per cent of 135 women with gall-stones had borne children." (Peterson).

The literature of the subject contains case reports like the following. In an empyematous gall-bladder, associated with pericholecystitis,

perforation from stones occurred during labor. Two days later the patient was operated, and thorough drainage was instituted; sepsis developed. Death occurred on the third post-operative day. (Rose.) Rupture of a calculous gall-bladder can occur previous to, during, or after labor. Pinard successfully operated a case of calculous cholecystitis on the 11th day of the puerperium. Vineberg incised the gall-bladder in two cases of acute cholecystitis, in one case, on the 10th day, in the other, on the 12th day after delivery and removed numerous small stones therefrom. Both cases recovered. In the same report he discusses a case of acute diffuse peritonitis consecutive to a ruptured gall-bladder, supervening a few hours after normal delivery. The condition was too grave to warrant surgical intervention. Death resulted twenty-four hours later. This patient had had, during her pregnancy, several attacks of biliary colic; her distended gall-bladder had been mapped out. Potocki's patient, a deutopara in the 8½ month of a normal pregnancy, had a sudden attack of right hypochondriac pain, nausea, vomiting, etc. Labor having started, the patient was delivered of a living, normal child. Eleven hours after the termination of labor, a cholecystostomy was performed; the gall-bladder contained pus and numerous calculi. Drainage. Recovery. In the discussion provoked by Graham's case, there was reported a case of death from general peritonitis due to rupture of the gall-bladder during labor. The post mortem revealed the rupture and 250 stones scattered about in the abdomen. Medical attendants should keep in mind that fever during the puerperium can be due to causes other than puerperal fever: appendicitis, gall-bladder disease, etc.

Greater familiarity with the symptomatology, clinical course, and treatment of cholelithiasis complicating pregnancy will lessen the frequency of occurrences such as the preceding, and will also qualify us to combat successfully, the various manifestations of gall-stone disease. I have analyzed and studied all the causes of undoubted gall-stone diseases complicating pregnancy reported with sufficient data, thirty cases in all, in the French, English, and German medical literature, during the years 1900-1918, inclusive.* Many

more cases were studied but owing to the fact that they are not reported with sufficient detail, they have influenced our conclusions only in a general way. In each case the diagnosis was verified either at the time of operation, or at the autopsy.

ETIOLOGY.

The cause of gall-stone disease is not definitely known. Numerous theories have been advanced; not one has, as yet, been found worthy of general acceptance. The following three factors, owing to their frequency previous to or during the existence of gall-stone disease, impress one forcibly as being important predisposing causes. In the individual case, one, two, or all of these three favoring influences may be operative.

A. Conditions associated with, favoring, or causing biliary stasis.

B. Inflammatory states of the biliary tract, primary or secondary to local disease, or to some general febrile state.

C. Regimens or diatheses favoring or causing hypercholesterinæmia.

Cholesterin, the principal component of gall-stones, is derived from the bile. Simple bile-stasis can, through the precipitation of cholesterin, lead to cholesterin-stone formation. Precipitation is prone to occur in inspissated bile, and the elements thrown down may lead to stone formation. In the later months of pregnancy, the abdominal muscles and the diaphragm contract feebly, and the bile being inefficiently expelled, stagnates in the gall-bladder.

Stasis, in addition to separating out the essential constituents of gall-stones from the bile, favors the growth of bacteria in the residual fluid. According to Sherrington, bacteria cannot enter the bile ducts, as long as the bile is expelled at regular intervals. Bile is not an antiseptic; it does not prevent the development of bacteria: left exposed to bacterial contamination, it undergoes putrefaction. Obstruction to the bile outflow may be due to foreign bodies present in the gall-bladder, or in the larger bile ducts, may be determined by inflammatory or other degenerative changes involving the gall-bladder or the bile ducts, or may result from such pathological states of contiguous organs as lead to impingement of one or more of the latter upon the bile ducts. Obesity, sedentary life, constipation, tight clothing,

*All the periodicals to be found at the John Crerar Library, Chicago, Ill. An exhaustive bibliography given by author had to be omitted for want of space.

such as ill-fitting and improper corsets, etc., are held by some to be predisposing factors. Miyake believes that the non-wearing of corsets by Japanese women is one of the principal reasons why gall-stones are so infrequent among them.

Bacterial organisms are said to be the most essential cause in the majority of cases of gall-stones. In this connection, one should not ignore the relation of mouth and teeth infections to appendicitis and cholecystitis. In some cases, supplementing the noxious influence of bile stasis, in others, acting independently, in many, acting conjointly, there is present a bacterial inflammation of the mucous membrane of the gall-bladder, of the bile ducts, or of both. If the stone be of aseptic origin, the abnormal element lies in the composition of the bile; if the stone be of inflammatory origin, the pathological condition is the cholecystitis or catarrh of the gall-bladder.

A history of acute cholecystitis first observed within a few weeks or months of parturition is given by many of the patients operated upon for gall-stone disease. Both pregnancy and the puerperium are not infrequently complicated by acute exacerbations or recurrences of cholecystitis. (Bettmann.) The gastrointestinal disturbances and constipation that attend the pregnant state no doubt favor the migration of the bacillus coli to the gall-bladder.

Although infection and retarded bile outflow predispose to gall-stone formation, they are not all-sufficient. Occlusion of the cystic or of the common duct may co-exist with an infected gall-bladder, and yet no gall-stones form. In order to produce calculi, infections of the gall-bladder must be of low type: colon bacillus, bacillus typhosus, staphylococcus, etc. Typhoid fever is considered an important etiological factor; it occurs in all lands and among all races, still gall-stones are very uncommon in the tropics; typhoid fever is less prevalent than formerly, but there seems to be no decrease in the number of patients having gall-stones.

Diathetic conditions can so alter the composition of the bile as to favor, suitable local conditions existing, the production of calculi. The supposition is that gall-stones are deposited as a result of error in metabolism (over concentration of cholesterol in blood and bile.)

Aschoff's theory of gall-stone formation can be stated briefly, as follows; cholesterol is a normal constituent of the bile and of the blood, its amount therein depending upon the amount of cholesterol in the food. A diet rich in fats and albuminous foods raises the cholesterol content of the bile. There is a distinct cholesterol diathesis. Persons with this diathesis, even upon an ordinary diet, retain their lipoids; an increased cholesterol content of the blood and of the bile results, and sooner or later, a sudden precipitation of the bile cholesterol in the form of gall-stones may occur. Stones are often present in patients with no excess of cholesterol in their blood,—the cholesterol shower having occurred at some previous time.

While in the pregnant woman, the presence of hypercholesterinæmia, associated with a clinical history of gall-stones, is strongly suggestive of cholelithiasis, a low cholesterol figure does not prove the absence of gall-stones. The cholesterol increase becomes manifest during the latter half of gestation. (Slemons and Curtis.)

The sedentary life of the pregnant woman and the encroachment of the enlarging pregnant uterus upon the liver and its biliary passages favor bile stasis. The normal obstetric patient eliminates less, during the entire period of gestation, than the normal non-pregnant woman. There is no well recognized line of demarcation between normal and pathologic pregnancy. During pregnancy the foetal metabolism throws extra work upon the maternal liver; this may determine a temporary impairment of function, an hepatic insufficiency, evidenced by urobilinuria, alimentary glycosuria, moderate icterus, etc. This added stress also predisposes the liver to local changes, evidenced by "the liver of pregnancy", icterus gravis, acute yellow atrophy of the liver etc. The factors enumerated above, taken in connection with the fact that the bile and blood of pregnant women contain more cholesterol than the bile and blood of men or non-pregnant women, explain in part the greater frequency of gall-stones in child-bearing women, explain in part the undeniable etiological influence of pregnancy in gall-stone formation.

PATHOLOGY.

One, two, three, or more biliary calculi may be present in the same patient. From a preg-

nant patient, Moulden removed 17 biliary calculi, Bosse 26, Graham 80 odd, Roith 84, Finkelstone 86, Brothers 250. In reporting his case, Davis says the calculi were "too numerous to count."

Gall-stones vary in volume, in shape, in location. Bishop says that in his case, the calculi were "like fig-seeds"; Mack, that they were "pea-shaped"; Barillon, "mulberry shaped"; Peterson, "facetted". In Rissmann's case, the calculus was large, long and elliptical; in Roith's, pigeon egg sized. In many of the cases, where numerous, the calculi were pea-sized.

Gall-stones usually develop in the gall-bladder, rarely in any other portion of the biliary tract. In their wandering they may lodge in the hepatic duct, in the cystic duct, (Moulden), (Later Moulden re-operated his patient, opened the duodenum and removed five small stones from the ampulla of Vater.); in the common duct, (Ploger); in the duodenal end of the common duct, including the ampulla of Vater, (Rissmann). "Autopsy showed stones in hepatic duct and in common duct." (Peterson.) From a VI-para, 2 months pregnant, Bosse removed one gall-stone from the common duct and twenty-five from the gall-bladder.

Stones may precede the presence of inflammatory changes in the gall-bladder, may be associated with and be the cause or effect of inflammation, slight, moderate, or severe. The inflammation may be limited to the gall-bladder, (cholecystitis), to the larger ducts, (cholangitis), it may spread to the finer radicles of the biliary tract, (diffuse cholangitis), or may be diffuse, involving the gall-bladder and the biliary passages. Cholelithiasis may result from a cholecystitis, and, once established, it becomes a factor in the maintenance of the cholecystitis, in the causation of recurrent attacks of cholecystitis. Inflammation of the gall-bladder and bile ducts is acute or chronic, ulcerative, perforative, or adhesive, catarrhal, phlegmonous, suppurative, or gangrenous. It may be limited to the mucous membrane, or involve part, (Davis), or the entire thickness of the gall-bladder wall. In the latter case, adhesions are very liable to form between the gall-bladder and one or more contiguous organs. The exudate accompanying these inflammations is mucous, serous, sero-fibrinous, or purulent (Graham), in nature. "Gall-blad-

der in addition to calculi, contained 200 cu. cm. of pus." (Moulden.) If perforation or rupture of a gall-bladder occur, the stones therein present may escape, either into the peritoneal cavity, or into a mass of adhesions, or into the liver substance.

Graham, operating, for a ruptured gall-bladder, a IV-para, six months pregnant, removed 3 stones from the peritoneal cavity, one from the gall-bladder, and two from the cystic duct. Should the inflamed gall-bladder become adherent to a neighboring viscus, the resulting adhesions may cause functional impairment, or an internal fistula may result, through which the gall-stones may escape; if the gall-bladder becomes adherent to the abdominal wall, the inflammation may involve the latter, and lead to the formation of an inflammatory mass, from which, ultimately, an external biliary fistula may result.

Amann's patient, a multipara, in the fifth month of pregnancy, noticed a painful mass, supposedly a fibroma, developing in the hepatic region. She went through a normal labor and three months later this painful tumor mass was successfully removed. It had resulted from a pericholecystic inflammatory process extending to and involving the contiguous abdominal wall and the appendix vermiformis, and it consisted of a ruptured gall-bladder and an extended gall-stone, an appendix and an inflammatory tissue mass.

Impaction of a stone in the cystic duct may lead to:

1. Dilatation of the gall-bladder, and a resulting:—A. Simple hydrops, (the wall of the gall-bladder may be greatly thickened; may be paper-thin, may be almost transparent.) B. Empyema.

2. Acute or chronic cholecystitis: catarrhal, serous, sero-fibrinous, suppurative, gangrenous, phlegmonous, ulcerative, perforative, adhesive.

3. Sclerosis of the gall-bladder; atrophic, hypertrophic.

4. Calcification of the gall-bladder.

If the calculus becomes impacted in the common duct there may result any of the fore-mentioned complications or a distention of the common duct, (Bosse), with or without a cholangitis.

Inflammation in the common duct involving contiguous tissues may produce a thrombophlebitis and thus interfere with the circula-

tion through the liver, may extend to the head of the pancreas, changing it to a firm tumor, (Finkelstone.) In his case, Max Neu found the gall-bladder shrunken, the common duct widened and bound down by broad inflammatory adhesions to the duodenum.

SYMPTOMS.

Moynihan, Mayo, and many other careful clinical observers are of the opinion that gall-stones do not exist without producing symptoms; they state that the vague term "indigestion" is used variously by patients to indicate all the several forms of distress which are the forerunners of a crisis of acute biliary colic. Parks claims that the statement "may not cause symptoms" is an admission of inability to recognize incipient symptoms.

Gall-stones produce symptoms by irritation, by migration, by obstruction. Pain and tenderness are most constant and most important symptoms of cholelithiasis, being described by the patients under a variety of terms: (a) discomfort; (Roith), (b) deep soreness, (Villard), (c) biliousness, (d) dyspepsia, (e) gastric distress, (Barillon), (f) neuralgia. The pain, usually limited to the region of the gall-bladder, radiates quite often to the epigastrium, subscapular region, neck, shoulders, arms, etc. "Pain in hepatic region," (Bosse.) "Pain in right hypochondrium, extending to right shoulder," (Davis). "Repeated attacks of pain under the right scapula, extending around to the epigastrium," (Bishop). "Lancinating pain in epigastrium radiating to back under the shoulder blade," (Moulden). "Sudden attack of pain in region of navel," (Roith). "Pain in right hypochondrium, radiating to shoulder and to back," (Villard).

What causes this pain? Various factors, chief among which are: (a) the calculi themselves; (b) the inflammation present in the gall-bladder and in the biliary tracts; (c) adhesions of inflammatory origin binding the gall-bladder, cystic or common duct to adjacent organs. These adhesions can also determine severe functional disturbances of stomach and intestines.

"The most characteristic and constant sign of gall-bladder hypersensitiveness is the inability of the patient to take a full inspiration when the physician's fingers are hooked up deep beneath the right costal arch below the hepatic

margin. The diaphragm forces the liver down until the sensitive gall-bladder reaches the examining fingers, when the inspiration suddenly ceases as though it had been shut off. I have never found this sign absent in a case of calculus or in infectious cases of gall-bladder disease." (Murphy).

The localized tenderness and the rigidity of the abdominal wall may be so marked that satisfactory palpation is difficult, impossible. Other factors, thick abdominal wall, meteorism, deep seated location of the gall-bladder, may prevent the detection of the latter. In a few cases, however, a gall-bladder distended by calculi (Peterson, Roith), or by fluid, mucous, purulent, etc., in nature, or by both calculi and fluid, (Villard), can easily be mapped out. A gall-bladder contracted by inflammation does not give rise to palpable tumor.

JAUNDICE.

In the diagnosis of gall-stone disease, too much significance has been attached to the symptom jaundice. It is an important sign, but is not to be considered essential to diagnosis; like hemorrhage in duodenal ulcer, it ought not to be waited for. Jaundice may not occur at all, (Heineck, Finkelstone,) it may be inconspicuous, it may be late, it may be inconstant. In some cases each attack of gall-stone colic is followed by transient jaundice. (Bishop). The presence of jaundice was definitely recorded in twenty of our thirty cases. The jaundice was accompanied by its usual concomitant manifestations, digestive disturbances, (Villard), beer-brown urine, (Bosse, Davis, etc.) clay-colored stools. (Ploger, Rissmann, etc.)

In diseases of the biliary passages, icterus is of two forms; it is of inflammatory or of lithogenous origin. The cause of the first is an inflammatory swelling of the mucous membrane of the biliary passages, (Korte, Barillon). In gall-bladder infections, the swelling of the mucous membrane may extend and involve the common and hepatic ducts and thereby obstruct the bile flow. The mechanical occlusion, partial or complete, of the common duct by a calculus, causes lithogenous jaundice. Icterus is frequently due to both inflammatory and calculous obstruction.

As long as a calculus remains in the gall-bladder, or in the cystic duct, jaundice is not likely to appear. In eleven of the cases in

which jaundice was observed, there was present, with or without other calculi, a common duct stone. (Bosse, 3 cases, Heineck, Mack, 2, Ploger, Rissman, Mc'Nee, Roith, 3 cases.) In a lesser number of cases, the provocative cause was the compression of the common duct or of the extra-hepatic part of the hepatic duct by a large stone in the cystic duct, by swollen lymph glands, by inflammatory exudates, by adhesions compressing or kinking the ducts, etc.

COLIC.

As stated before, gall-stones cause pain through the irritation, infection, and inflammation that result from their impaction in the neck of the gall-bladder or in any part of the bile-ducts. They also cause a characteristic lancinating pain, agonizing in nature, by meandering through the bile-ducts for a shorter or longer distance and setting up a spasm of the muscular wall behind the stone. This latter pain is intense, is designated as biliary colic, and is usually accompanied by chills, frequent vomiting, white lard-like stools, and bile stained urine.

Gall-stone colic can be caused by: 1. an adherent, inflamed gall-bladder containing calculi. (Finkelstone), or having contained calculi; 2. an inflamed gall-bladder distended by fluid or stones, its cystic duct being occluded by inflammation or by a calculus, (Barillon), or calculi; 3. the entrance into, or attempted passage through some part of the ducts of a calculus, altered bile, mucus or other irritating foreign body; 4. the transit of a stone through the bile-passages; 5. impaction of a stone in a dilated inflamed common duct or in any of its tributaries; (Bosse, two cases, Ploger, Rissmann). All the cases with stone in the common duct gave a history of biliary colic.

DIAGNOSIS.

If the symptoms are typical, the diagnosis of gall-stone disease is easy. In addition to recognizing the condition of cholelithiasis, the surgeon should, if possible, determine the exact location of the calculi and note what pathological conditions or changes may be present. Digestive disturbances are undoubtedly the cause of most failures to recognize early gall-bladder symptoms. Cholecystitis or cholelithiasis, owing to their reflex symptoms, are often mistaken for diseases of the stomach.

By keeping in mind that much of the dys-

pepsia of pregnancy is from unrecognized gall-stone disease, and that gastric disturbances in pregnancy should receive careful consideration and not be regarded simply as concomitant features of the pregnant state, many diagnostic errors will be avoided. The discovery of calculi in the feces is evidence of their previous existence. It is not proof that any remain. X-ray pictures taken and interpreted by expert roentgenologists are of paramount importance in the diagnosis of biliary, renal or ureteral calculi. The absence of any roentgenographic shadow does not prove the absence of gall-stones. "X-ray revealed outline of gall-bladder filled with stones"—Peterson.

Things of importance to arrive at a diagnosis are: 1. an exact history, including the record of previous attacks of hepatic colic; "Previous attacks of biliary colic". (Rissmann, Ploger). "Gave a history of having had similar attacks during her previous pregnancies," (Davis). "Previous attacks biliary colic. Three years ago, first attack of pain in hepatic region. Since then, recurrent attacks", (Bosse). 2. The location of the tenderness and pain and the nature and radiating character of the latter. 3. A thorough examination including a careful inspection and palpation of the abdomen, especially of the hypochondriac region. 4. The exclusion of such pathological conditions as simulate gall-stone disease; lead colic, renal colic, duodenal ulcer, nephrolithiasis, chronic appendicitis, movable kidney, infection of the genital tract. Cholecystitis is frequently diagnosed appendicitis and *vice versa*. Gall-stone disease and appendicitis are frequently present in the same patient. Cholelithiasis may co-exist with other pathological states.

TREATMENT.

In cholelithiasis, two urgent indications are present: 1. the removal of the calculus or calculi present in the gall-bladder or ducts; 2. the cure of the inflamed condition of the bile tracts. It is agreed that gall-stones should be removed. No one nowadays treats a vesical calculus by other procedures than operation. The spontaneous passage of a calculus through the intestine may bring about a cure but other calculi usually remain in the gall-bladder and any one of them may set up an inflammatory attack. In gall-stone disease, medical treatment is purely prophylactic, merely palliative. It is not curative. Moynihan

says, "I hold that once a diagnosis has been made, operation is always indicated unless there are grave reasons forbidding resort to surgery. Reasons should not be asked to support a plea for operation, but to justify any other course than this."

The earlier the patients are operated, the more prompt the relief; the more numerous the complete recoveries. With advancing pregnancy, the technical difficulties incident to operations on the gall-bladder and bile-ducts increase. In these cases, we never use chloroform as a general anaesthetic; we are afraid of its action on the liver cells. We have been well pleased with the use of hard round cushion placed transversely beneath the dorso-lumbar region. One of three operations, choledochotomy, cholecystostomy, or cholecystectomy is usually performed, the type of operation selected depending, in the individual case, upon the location of the calculi and upon the nature of the associated complications. In the extraction of calculi from the bile-ducts, injury of the duct and wall should be avoided. Rather than risk this, the incision in the duct should be prolonged.

If the calculus or calculi are in the hepatic or common bile-duct, their removal is effected by incising the common duct; drainage is instituted through this incision. (Hepatic drainage.) Recovery followed in the three cases, (Bosse, two; Ploger, one;) in which this was done. Rissmann successfully removed a calculus from the duodenal end of the common duct by incising the anterior and posterior duodenal wall. In the cases in which stones were present in the gall-bladder and in the common duct, the performance of a cholecystostomy and a choledochotomy at one sitting plus the institution of hepatic drainage gave satisfactory results. (Bosse, Mack, Neu, etc). Roith, in a case in which stones were present in the common duct, removed the gall-bladder, then incised the common duct and drained through the latter. Recovery. Davis, in a patient seven months pregnant, performed a cholecystectomy. Forty-five days later, the uterus was dilated manually and a premature fetus was extracted. In all of the other cases, a cholecystostomy was performed. Finkelstone in his case did a cholecystostomy; one year later he performed a cholecystectomy. In some cases, owing to the coexistence of other patho-

logical states, additional operative work was done. There were two deaths, (Graham, Peterson), in the series of cases under consideration. In Graham's case, the patient, at the time of operation, had a general peritonitis from her ruptured gall-bladder. In Peterson's case, there was considerable blood oozing, (the coagulation time of the blood was seven minutes) and there developed an acute post-operative suppression of urine. In those cases of gall-stone disease in which other pathological states were present, appropriate additional operations were performed. Erdmann, in his case, did a cholecystostomy and an appendectomy. Brothers, in one case, removed 205 gall-stones, excised one inch of the left tube to induce sterility, and did a right salpingo-oophorectomy for an existing right tubal gestation.

There is a wide difference of opinion as to which operation, cholecystostomy or cholecystectomy, is indicated in gall-stone disease. Some operators almost invariably perform a cholecystostomy; others equally competent believe that cholecystectomy is the most universally applicable operation for the cure of cholelithiasis. Others do as Kummel, who says, "We remove the gall-bladder when we must, we save it when we can." It is well to select the operation which can be performed in the shortest possible time consistent with the existing conditions of the biliary passages. After cholecystectomy, re-drainage of the biliary passages may prove extremely difficult and dangerous. The advocates of cholecystectomy claim that the removal of the organ takes away the possibility of stones being left behind, being reformed, that it removed an inflamed organ.

It is agreed that cholecystectomy is attended with more technical difficulties than cholecystostomy. It requires greater care to avoid injury to the bowels, vessels and main bile-ducts. It is wiser to choose the safer operation until the technic of the more complicated one has been mastered.

Cholecystostomy is the operation of election:

1. Whenever the patient's condition is so bad that the difficulties attending a cholecystectomy render its performance unsafe.

2. When the gall-bladder is not seriously damaged and when the cystic duct is not ulcerated or narrowed by stricture. It is believed that the gall-bladder has some other

function than that of a mere receptacle of bile.

3. When the common duct is strictured.

4. If jaundice and pancreatitis complicate the gall-stone disease.

Cholecystectomy is indicated:

1. For very thick, acutely inflamed, or gangrenous gall-bladders in which a stone is impacted in the cystic duct.

2. For chronically thickened gall-bladders. A thick walled gall-bladder which has become functionless should always be removed. When the gall-bladder becomes thickened and hardened from long continued inflammation, it is manifestly impossible that it should dilate no matter what obstruction there may be in the common duct.

3. For large gall-bladders distended with clear fluid and resulting from the impaction of a stone in the cystic duct.

4. For the "strawberry" gall-bladder (chronic thickening with ulceration.)

5. For a calculous gall-bladder adherent to the stomach, intestine, or omentum.

6. When the walls of the gall-bladder are so modified by disease that neither the storage nor the expulsion of bile is possible.

SUMMARY.

1. Gall-stone disease occurs with far greater frequency in women than in men; with far greater frequency in women that have borne children than in women that have remained sterile. Its period of greatest incidence is the child-bearing period.

2. Gall-stone disease, alone or associated with one or more other related or non-related pathological states, not uncommonly complicates a pregnancy otherwise normal or abnormal.

3. The first manifestations of cholelithiasis may date from the existing gestation or from a previous pregnancy; may precede, coincide with or follow an abortion or premature labor, accidental or induced.

4. All conditions that are associated with, that favor or cause: (a) bile stasis; (b) inflammatory or degenerative changes involving the gall-bladder or bile tracts; (c) pathological alterations in the composition of the bile, such as hypercholesterinemia, etc., predispose to gall-stone disease.

5. Pregnancy is an important etiological factor in the causation of cholelithiasis.

6. The pathology of gall-stone disease complicating pregnancy is the pathology of gall-

stone disease occurring in the non-pregnant. There may be present: (a) an inflammation of the gall-bladder or bile ducts in which one, two, or many calculi are lodged, or impacted; (b) a distention of the gall-bladder or bile-ducts by mucus, pus, or calculi; (c) a pericholecystic inflammation, calculous in origin, leading to adhesion formation, to fistula formation, etc., and corresponding disturbances of function; (d) changes in the liver; (e) changes in the pancreas.

7. Some of the symptoms of gall-stone disease are due to the irritation inherent to the presence of gall-stones, to their migration through, or impaction in the bile-ducts or neck of the gall-bladder. Other symptoms are due to the concomitant inflammation of the gall-bladder, bile-ducts and neighboring organs, causative of or resulting from the presence of calculi.

8. Rupture of a gall-bladder distended by calculi, by fluid, mucous or purulent in nature, can occur during gestation or during or immediately after labor.

9. In the differential diagnosis of this condition one should bear in mind:

a. That not infrequently gall-stone disease originates during or may complicate pregnancy;

b. That cholelithiasis and cholecystitis owing to their reflex symptoms are often mistaken for gastric disease;

c. That appendicitis and gall-stone disease frequently co-exist;

d. That digestive disturbances associated with acute pain and tenderness in the right hypochondriac region, with or without jaundice, with or without symptoms of biliary colic are in themselves ample justification for operative exploration of the gall-bladder and ducts.

10. Cholelithiasis is a surgical disease; it calls for operative relief. Medical measures in this disease are merely palliative; appropriate surgical measures are curative.

11. Gall-stone disease in itself is never an indication for the artificial termination of pregnancy.

12. Whenever, for some cause or other, the abdomen is opened in women of the child-bearing age or past the child-bearing period, the gall-bladder and larger bile-ducts should be examined if it can be done: (a) without or with only slight traumatizing of the tissues; (b)

without exposing the patient to too much additional risk; (c) without contaminating clean peritoneum. Should the patient give a history of chronic digestive disturbances, the indication is absolute.

13. Women exposed to pregnancy, suffering from calculous cholecystitis, or any other form of gall-stone disease, should be operated, the calculi removed, and the gall-bladder drained.

14. Pregnancy does not contra-indicate operations upon the gall-bladder or bile tracts. Peterson reported only 3 miscarriages in 23 reported operated cases. In only one (Roith) of the cases which we considered, did abortion follow the operation.

15. It has been repeatedly demonstrated that the operative relief and cure of cholelithiasis does not unfavorably influence gestation, does not unfavorably influence parturition. Icterus, whether acute or chronic, is a constant menace to the fetus.

16. Early operation is now, in proper hands, a safe procedure. It is an effectual cure of the symptoms produced by gall-stones; it has a low mortality and guarantees against serious complications in the future.

17. Cholecystostomy, cholecystectomy, and choledochotomy have been successfully performed upon pregnant women for the relief of gall-stones. After these operations, drainage is to be employed until the bile ceases to flow spontaneously through the wound, until complete subsidence of whatever degree of cholangitis existed.

18. The prognosis of operative intervention is not unfavorably influenced by the existence of pregnancy.

19. In persistent gall-bladder disease, trouble changes in the urine manifested by the presence of casts and albumen are not uncommon and are not necessarily a bar to operative interference.

1809 South Trumbull Avenue.

Proceedings of Societies, Etc.

EXECUTIVE COUNCIL. MEDICAL SOCIETY OF VIRGINIA.

Called meeting of the Executive Council, Westmoreland Club, Richmond, Va. November 25th, 1918. 8:30 P. M.

Present, Drs. A. L. Gray, P. A. Irving, E. G. Williams, H. H. McGuire, B. R. Tucker,

E. L. Kendig, P. C. Riley, Isaac Peirce and A. G. Brown, Jr.

Dr. A. L. Gray, chairman, called the meeting to order stating that the object of the meeting was to consider any subject that may be brought up relating to the business of the Medical Society of Virginia. After the reading of the minutes of the preceding meeting, Dr. E. L. Kendig introduced the following resolution (which was adopted): Whereas the Executive Council on October 7th, 1918 passed the following resolution,

"Resolved, That in view of the widespread epidemic of influenza throughout the State, we feel that the meeting of the Medical Society of Virginia should be indefinitely postponed. We believe that the great need of physicians in controlling this epidemic and treating the victims of this disease makes it imperative that they should stay where they are most needed. The date of the postponed meeting should be left to a committee of the President, the Secretary-Treasurer, the chairman of the Executive Council and the members of the local committees".

Whereas, this special committee has recommended that the annual meeting of the Medical Society be cancelled altogether, and whereas this action is approved by the Executive Council now sitting: Therefore, Be it resolved, that the Council proceed to transact such business as the affairs of the Society may require.

The chairman, in conformity with the resolution adopted, called for the report of the Secretary-Treasurer. The Secretary-Treasurer read his report, which appears herewith. Dr. E. L. Kendig moved that, due to the present emergency, the Secretary-Treasurer be directed to send notice to each county society that bills for fees to Society will be sent direct to members unless objection is made by said county society within 30 days. This resolution was adopted.

The chairman appointed Drs. Kendig and Tucker a committee on auditing. This committee took up the Treasurer's report and reported that the same was correct.

It was moved and adopted that the Secretary-Treasurer be allowed to publish in book form a limited number of copies of the Constitution and By-laws, the transactions of the Medical Society of Virginia, and a Roster of the Society.

It was moved and adopted that the Secre-

tary-Treasurer be allowed \$20 a month for 12 months to pay an office helper.

Chairman appointed the following committee on subject for discussion at the next meeting of the Society: Dr. Hunter H. McGuire, chairman; Dr. J. Staige Davis, Dr. Alex. G. Brown, Jr.

It was moved and adopted that the usual appropriation of \$50 be made to the clerk of the Council.

Owing to the absence of Dr. Charles Edwards, chairman of the Necrological Committee, who is in the medical corps of the army, Miss Agnes Edwards, upon motion approved by the Council, was requested to collect and compile notice of deaths of members for the necrological committee.

The Council elected Dr. J. A. White² of Richmond, chairman of the Membership Committee in place of Dr. W. D. Turner (deceased).

Upon motion, duly adopted, Richmond City was selected as the place for the next annual meeting, the date of same to be fixed by the President, Secretary-Treasurer, chairman of the Executive Council and chairman of the local committee on arrangements.

In response to a letter from Dr. J. W. Preston, Secretary-Treasurer of the Virginia State Board of Medical Examiners, notifying the Secretary of the Society of certain vacancies on the Medical Examiners' Board, the following were elected as nominees of the Society.

For Fifth District, Dr. I. Carrington Harrison, of Danville, in the place of Dr. Martin. For Third District, Dr. H. U. Stephenson, of Toano, in place of Dr. J. E. Warinner. For Seventh District, Dr. R. C. Randolph, of Boyce, in place of Dr. P. W. Boyd.

Dr. Riley moved, and it was adopted, that the Council elect an alternate group of nominees to be submitted to the governor only if the first group failed of appointment. The following were nominated. For Seventh District, Dr. W. F. Driver, New Market; For Fifth District, Dr. Geo. A. Stover, South Boston; For Third District, Dr. W. S. Gordon, Richmond.

It was moved and adopted that the Executive Council authorize the Publication Committee of the Medical Society of Virginia to assume charge, April 1919, of the *Virginia Medical Monthly* and to conduct same without loss to

the present owner until the next annual meeting of the Medical Society of Virginia. It was further moved and adopted that the Executive Council request an option on the purchase of the *Virginia Medical Monthly* for \$1000 subject to the approval of the Medical Society of Virginia, October, 1919.

Motion to adjourn was then made and adopted.

(Signed) ALEX. G. BROWN, JR.
Clerk.

Report of Secretary-Treasurer.

To the Executive Council of the Medical Society of Virginia:

The following is a statement of receipts and disbursements since the 1917 meeting of the Medical Medical Society of Virginia.

Receipts.

1917.		
Dec. 7.	Amt. rec'd from Dr. M. W. Peyser-	\$ 571.47
1918		
Nov. 22.	Fees collected from members to date -----	\$2706.45
		<hr/> \$3,277.82

Expenditures.

1917.		
Dec. 11.	Express on Books, Cabinet, etc. from Dr. M. W. Peyser, -----	\$ 2 29
1918		
Jan. 2.	Packing Dr. Peyser's Books, and shipping same, -----	4.00
	2. Salary Sect'y Va. Medical Society,--	250.00
	14. Amt. paid for Secretary's Bond--	7 50
	14. Paid Dr. Stephenson for Legislative Work -----	100.00
	31. Salary of Stenographer -----	20.00
Feb. 18.	100 Stamps -----	3.00
	21. 300 One-cent Stamps -----	3.00
	25. Reporting Roanoke Meeting, ----	74.00
Mch. 1.	Salary of Stenographer, -----	20.00
	11. 200 Three-cent Stamps, -----	6.00
	28. Printing Transactions, -----	47.41
	28. Stamps, -----	6.00
Apl. 1.	Salary of Stenographer -----	20.00
	17. Printing -----	18.75
	18. 100 Stamps, -----	3.00
May. 6.	Bill, Va. Med. Monthly, -----	81.06
	6. Stamps, -----	6.00
	6. Salary of Stenographer (for April,) -----	20.00
	15. Stamps (for sending out bills),--	10.00
	22. Stamps (for sending out bills),--	10.00
June 1.	Salary of Stenographer -----	20.00
	8. Stamps, -----	10.00
July 1.	Salary of Stenographer, -----	20.00
	1. Salary of Sect'y-Treas., Va. Med. Soc. -----	500 00
	5. Stamps, -----	10.00
	5. Printing, to date, -----	9.00
	24. Stamps, -----	10.00
	29. Stamps, -----	10.00
Aug. 1.	Salary of Clerical help (July 15-Aug. 1.) -----	10.00
	13. 1750 Postal cards and 1750 One-cent Stamps, -----	35 00
	13. Printing Bill-heads and circulars--	11.00

20.	500 Three-cent Stamps, -----	15.00
27.	100 Postal Cards, -----	1.00
30.	Salary of Clerical help, -----	20.00
30.	Bills, Va. Med. Monthly, -----	80 67
Sept. 12.	Stamps, -----	10.00
Oct. 1.	Salary of Clerical help, -----	20.00
1.	2000 One-cent Stamps, -----	20.00
1.	Salary of Sect'y-Treas. for 3rd. quarter, -----	250.00
12.	1800 Postal cards, -----	18.00
16.	1800 One-cent Stamps, -----	18.00
Nov. 1.	Salary of Clerical help -----	20.00
1	500 Three-cent Stamps (for bills),--	15.00
4.	Extra Clerical help -----	6.00
6.	200 Three-cent Stamps, -----	6.00
14.	Printing Bill, -----	14.75
		\$1,873.83
	Amt. Received: -----	\$3,277.92
	Amt. Disbursed: -----	\$1,873.83

Balance now in Bank ----- \$1,404.09

110 members were re-instated who owed \$6.00 and upwards by paying the amount due in full or by compromise.

The amount collected from this class of members was \$685.10

Respectfully submitted,

PAULUS A. IRVING,
Secretary-Treasurer.

Report of Necrological Committee.

To the Executive Council of the Medical Society of Virginia.

Since the 1917 meeting of the Society, we have been informed of, or have noted in the daily papers, the death of 35 members. As a notice of each member recorded has been published in an issue of the *Virginia Medical Monthly*, we give below only the names, addresses and dates of death of such members.

Dr. William Edward Harwood, Petersburg, Va., December 11, 1917.

Dr. Thomas James Taylor, Cochran, Va., January 7, 1918.

Dr. Thomas D. Crothers, Hartford, Conn., January 13, 1918.

Dr. William Chilton Day, Danville, Va., January 25, 1918.

Dr. Robert Lee Payne, Sr., Norfolk, Va., February 8, 1918.

Dr. John Robinson Gildersleeve, Richmond, Va., March 5, 1918.

Dr. William Winfield Nelson, Richmond, Va., April 8, 1918.

Dr. Edwin Timothy Rucker, Richmond, Va., April 9, 1918.

Dr. William Beverley Pettit, New Canton, Va., April 27, 1918.

Dr. Philip Pendleton May, Trevilians, Va., April 29, 1918.

Dr. J. A. Meriweather, Holcombs Rock, Va., April 29, 1918.

Dr. Everett W. Gee, Richmond, Va., May 6, 1918.

Dr. Roger Martin, Worsham, Va., May 1918.

Dr. William F. Creasy, Newport News, Va., May 1918.

Dr. Lewis Edwin Harvie, Danville, Va., June 16, 1918.

Dr. Richard Saunders Martin, Stuart, Va., June 23, 1918.

Dr. D. Frank Geil, Broadway, Va., June 24, 1918.

Dr. Jacob Pinckney Killian, Salem, Va., July 5, 1918.

Dr. Andrew Jefferson Osborne, Lawrenceville, Va., July 9, 1918.

Dr. C. L. Carter, Chatham, Va., July 11, 1918.

Dr. Christopher Tompkins, Richmond, Va., July 20, 1918.

Dr. Lucien Loftin, Richmond, Va., July 21, 1918.

Dr. William P. Mathews, Richmond, Va., July 25, 1918.

Dr. Bronson Ewing Summers, Richmond, Va., September 28, 1918.

Dr. Reuben Frank Davis, Lexington, Va., October 5, 1918.

Dr. Thomas Nash Broadbudd, Richmond, Va., October 5, 1918.

Dr. William F. Kabler, Bristol, Va., October 11, 1918.

Dr. William Dandridge Turner, Shoalbay, Va., October 12, 1918.

Dr. John Marye Lewis, Manassas, Va., October 14, 1918.

Dr. Edward Virgil Copeland, Round Hill, Va., October 15, 1918.

Dr. Henry W. Dew, Lynchburg, Va., October 18, 1918.

Dr. William Walter Vest, Clarksville, Va., October 25, 1918.

Dr. George Christman Rodgers, Elkins, W. Va., October 26, 1918.

Dr. Alfred Leigh, Colvin Run, Va., October 30, 1918.

Dr. Lawrence Edward Flannagan, Charlottesville, Va., November 6, 1918.

THE ROANOKE ACADEMY OF MEDICINE.

Resumed its meetings on Monday night, November 18th. The first two meetings of the current session had to be deferred for lack of quorum, the fellows being too busy attending influenza.

Dr. W. B. Foster was elected president; Dr. J. H. Dunkley, first vice-president; Dr. A. Stone, second vice-president; Dr. E. P. Tompkins, secretary, and Dr. T. D. Armistead, treasurer.

Dr. L. G. Pedigo gave a talk on his recent experiences in combating "Flu" at Tom's Creek among the employees of the Virginia Iron, Coal and Coke Co., having gone to that locality to aid the local profession for several weeks.

A lively discussion ensued, in which Drs. Jones, Hughes, S. J. Gill, E. G. Gill, L. Davis and Conduff participated.

An interesting letter was read from Dr. Hugh Trout. The writer gave some details of his work near the battle lines in France, the special line engaging his attention at this time being "early abdomens and certain types of bone cases." He mentioned that he was "living sixty feet under ground and in luxury; it is dry."

Seventeen members attended.

The Thursday Luncheon Club has likewise resumed, after the "Flu" epidemic, meeting at the Ponce de Leon Hotel for lunch and informal medical discussions. Some interesting points on the recent epidemic were brought

out. These affairs have been quite successful and are thoroughly enjoyable, one hour only being the time allowed, from one to two o'clock, every Thursday.

E. P. TOMPKINS, M. D.

Communications.

Treatment Of Pneumonia.

Toano, Va., Nov. 7, 1918.

To The Editor:

I have had along with the other doctors of the State a severe epidemic of influenza. I have perhaps had more cases than the average country doctor, owing to the fact that two of my brother practitioners, living near me, fell victims to the disease. I have had around 450 cases in all, and 35 cases of pneumonia of the streptococci infection. As soon as I found out that the infection was due to the streptococci germ, I began to use the streptococcus-staphylococcus vaccine put up by a well known manufacturer of vaccines. The results from the use of this vaccine have been marvelous. In every case where I saw the patient within 24 hours after the pneumonia chill and gave the vaccine, the temperature would be normal and the patient practically well, so far as the pneumonia was concerned 48 hours thereafter.

During the epidemic I got out of the vaccine and was unable to secure any for a few days. During that time I had four cases of pneumonia to develop, in which I was unable to give them the vaccine. Each of these cases ran a temperature of 104° to 106° from five to seven days, the fever leaving them at this time and patients making a slow recovery. I mention this to show the contrast between cases where the vaccine was given and where it was not given.

I am thoroughly convinced of the wonderful results from this vaccine in the streptococci pneumonia. I have been asked by my patients a number of times in the last few weeks to report the success of the use of this vaccine through the papers, but I have been reluctant to do so. However, if you think well enough of the success I have had, you are at liberty to publish this letter, that the profession at large might at least give this particular vaccine a trial, as it cannot do harm, and to my mind there is no question about the results.

During the epidemic I lost four patients, two with pellagra complicated with influenza, one with pneumonia following influenza, no vaccine given, and one with pneumonia following influenza, vaccine given six hours before death.

The vaccine I refer to has been put up by the various laboratories for a number of years. It is nothing new to the profession. It looks to me like it is almost specific where given within 24 hours after the pneumonia chill.

H. U. STEPHENSON, M. D.

Book Announcements and Reviews

The Monthly will be glad to receive new publications for acknowledgment in these columns, though it recognizes no obligation to review them all. As space permits we will aim to review those publications which would seem to require more than passing notice.

Physician's Visiting List for 1919. 68th year of publication. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. Price, \$1.25 to \$2.50, post free, according to style and size.

This Visiting List is so well known to physicians generally that it is only necessary to announce its publication. In addition to pages for names of 25 or more patients per week and blank pages for special data, this book includes much information in readily available form for the busy practitioner such as various kinds of tables, first aid measures, dose table, U. S. P. (1916), etc. The copy before us is for 25 patients per week, leather covered, with pocket and pencil, suitable size for pocket, at a cost of \$1.25.

Emergencies of a General Practice. By NATHAN CLARK MORSE, A. B., M. D., F. A. C. S. Published by C. V. Mosby Company, St. Louis, Mo. 1918. Price, \$4.50. 459 pages and 251 illustrations.

To have met with some of the practical experiences that the author has described in this book is well within the bounds of truth, but no general practitioner will ever be called on in a long life to meet most of them, because the great variety calls for the best talent in every line of specialism in medicine. In the ordinary run of work, such as removal of foreign bodies in different parts of the body, the treatment of drowning, poisoning from gas, nose bleed, colics, convulsions and poisoning from drugs used as medicines, very useful and explicit advice is given. When, however, directions for

major surgical operations are mentioned, they are all too brief, in a book of this size, to be of much practical benefit. Owing to the very large number of subjects touched on, it repays very careful reading and is valuable as a condensed book of reference.

H.

Editorial

Greetings:

We extend to each of our readers Christmas Greetings and Best Wishes for a Happy and Prosperous New Year.

Medical Society of Virginia.

Owing to the influenza epidemic of October, the Medical Society of Virginia did not hold its annual meeting this year. The great demand for physicians in every community and overwhelming need every where in the State for medical care of influenza patients made it imperative that any convention of physicians be postponed. The Executive Council took the precaution of postponing for a short time hoping that conditions would justify the meeting. But as the weeks went by it became more and more apparent that in every section of the state medical men were urgently needed every hour among their clientele; that to call them away was unjustifiable and unwarranted. In fact it was really believed that the physicians of Virginia would not answer a call to come to the meeting in the face of the evident needs hourly pressing them at home. So with a second consideration it was determined to postpone the annual meeting of the Medical Society of Virginia until October 1919.

As it was essentially important that certain business of the Society should be transacted, the chairman, Dr. A. L. Gray, called a special meeting of the Executive Council to meet in Richmond, November 25th. The meeting was well attended and important matters were considered. For the details the reader is referred to the report of the meeting on page 237 of this journal.

These are indeed notable and unprecedented times in the medical affairs of our State and Nation. Particularly important is this period in the affairs of our State Society. With a new constitution and by-laws as yet untried, although adopted; with the unusual conditions of the influenza epidemic requiring a postpone-

ment of a year of its meeting; with the absence of so large a part of its membership in war service, indeed, the Society's interests and functions are put to strain and stress. But it is believed and felt that, although in trying circumstances, its interests will not materially suffer. On the contrary it is believed that in the reconstructive period of the war, its members will return to their former homes and will show their loyalty by making the session of October 1919 notable for its enthusiasm and scientific worth. In the meantime, the officers who hold over until that time will zealously work for and maintain every tradition and right of the Society. Under the presidency of Dr. E.G. Williams, no ethical or scientific interest of the Society will suffer, while one needs only to look over the report of the Secretary-Treasurer, Dr. P. A. Irving, to see that the financial and material interests are in good hands.

The *Virginia Medical Monthly* wishes to urge the members of the Society who were on the program to read papers at the October meeting to send the papers in for publication. It will be the purpose of the journal to serve as means of placing before the members of the Society the scientific papers which were to have been read at the meeting. In this way it will give interest to its readers and serve to keep up the transactions of the Society. Every one is requested to send the papers in at once. The Publication Committee will have them published as near as possible in the order in which they appear on the program.

The *Virginia Medical Monthly* wishes to serve the members of the Society in every way possible. If members who are serving in the army will notify us when they return, it will be a pleasure to publish that fact in order that fellows already at home, as well as those abroad, may be informed and be kept thus in touch with friends in the profession.

Red Cross Christmas Roll-Call.

Have you answered the Red Cross Christmas Roll-Call?

♣ALL YOU NEED IS A♥AND A\$♣

Even though actual peace may be in sight, let no one think that the work of the Red

Cross is finished. Your help will be needed as much now as during the war. Millions of American boys are still under arms; thousands of them are sick and wounded. It may take a year to bring them all home from France. In the meantime, they and their families must be cared for.

Our solidiers, sailors and marines have done nobly and have been called upon to make greater sacrifices than we know. Can we do less than contribute at least a dollar membership to the Red Cross, which has done a wonderful work both at home and abroad? If you are a member enroll some one else. We could not go; let us at least have the satisfaction of giving.

Nothing could help you more to enjoy this Christmas season than to feel that you had done your part in contributing to a cause which is working for the alleviation of suffering the world over. The membership drive will last from December 16 through December 23. It should be both a duty and a pleasure to give to the Red Cross work.

Comments on Influenza.

The Face Mask: With terrible emphasis, the public, as well as the profession, has had its attention drawn during this epidemic to the use of the mask for the protection of people from diseases. The surgeons while operating have used the mask during recent years to prevent disease germs from entering wounds of the patients from the mouth and nose of the surgeons. During this terrible epidemic the proper use of a properly made mask undoubtedly protected many people from "taking" the "Spanish Flu."

The use of the mask should become more general. At certain periods of the year, when epidemic diseases entering the body through respiratory route appear, it should be used, especially by children in schools, on cars, or in moving-picture theatres, etc. Of course, the mask should be properly made, should be worn on same side, and should be sterilized before being again used. Measles, whooping-cough, meningitis, infantile paralysis, scarlet fever, influenza, pneumonia, and tuberculosis—may thus be, at least in part, held in check through this precaution. Remembering that the micro-organisms which make possible these diseases are implanted, and propagated in bodies of the people and disseminated therefrom to in-

fect the respiratory passage of other bodies, every means that tends to obstruct and prevent this transplattation should be used thoroughly.

In an interesting article (*Jour. A. M. A.*, October 12th, 1918, page 1216), Doust and Lyon reported experiments with face masks and reached the following conclusions:

1. During ordinary or loud speech, infected material from the mouth is rarely projected to a distance of four feet, and usually less. A four-foot danger zone exists about the patient under these conditions.

2. During coughing, infected material from the mouth may be projected at least ten feet. The danger zone about a coughing patient has, then, a minimum radius of ten feet.

3. Masks of coarse or medium gauze of from two to ten layers do not prevent the projection of infected material from the mouth during coughing. Such masks are worthless, therefore, in preventing the dissemination of respiratory infections.

4. A three layer buttercloth mask is efficient in preventing the projection of infectious material from the mouth during speaking or coughing. It is a suitable mask, therefore, to be worn in connection with respiratory diseases.

Then *buttercloth*, six by eight inches, hemmed on the edges (with four tapes), makes the best cloth mask.

A. G. BROWN.

News Of M. R. C. Officers.

Capt. E. Latane Flanagan, formerly of the State Health Department, is now assistant camp surgeon, at Camp Travis, San Antonio, Texas.

Capt. J. H. Hiden, Pungoteague, Va., is at present stationed at Debarkation Hospital No. 5, New York City, which is for the reception of the wounded soldiers returning from France.

Capt. Henry Page Mauck, who has been supervisor of orthopedics of the Southeastern group of camps, has been transferred to the staff of the Walter Reed General Army Hospital, Washington, D. C.

Dr. G. E. Faulkner, formerly of South Boston, Va., who has been an assistant surgeon in the navy, resigned his commission in that branch of the service and received a commission in the medical corps of the army. He is at present stationed at Camp Greenleaf, Ga.

Dr. N. I. Ardan, Bristol, Va., has been promoted to the rank of major, and is now stationed at Camp Jackson, S. C. He entered the service as a lieutenant.

Dr. J. A. Rice, Heathsville, Va., received his commission and was ordered to Ft. Oglethorpe, Ga., last month.

Capt. A. L. Tynes, Staunton, has been ordered to the base hospital at Camp Bowie, Texas.

Capt. J. T. Buxton, Newport News, has been ordered to base hospital, Camp Jackson, Columbia, S. C.

Capt. Bernard Barrow, Barrows Store, who has been at Arcadia, Fla., has been transferred to Kelly Field, San Antonio, Texas.

Dr. M. L. Rea, Charlottesville, has been commissioned captain, and ordered to Camp Sevier, S. C.

Dr. G. B. Lawson, Roanoke, has been commissioned captain, and ordered to report at Walter Reed General Hospital, Washington, D. C.

Dr. Julian Robinson, Danville, was also commissioned captain, with orders to report last month at Ft. Oglethorpe, Ga.

Dr. T. C. Quick, Falls Church, Va., who is now a lieutenant colonel in the army is located at U. S. Army Embarkation Hospital No. 1, Hoboken, N. J.

New Medical Examiners.

Governor Davis has announced the following appointments for three vacancies on the State Board of Medical Examiners: Dr. H. U. Stephenson, Toano, to succeed Dr. J. E. Warinner, Richmond, R. F. D., retired; Dr. I. C. Harrison, Danville, to succeed Dr. R. S. Martin, Stuart, deceased; Dr. Robt. C. Randolph, Boyce, to fill unexpired term of Dr. P. W. Boyd, Winchester, resigned.

The Petersburg (Va.) Medical Faculty

Held their annual meeting, November 21, and the following officers were elected for the ensuing year: President, Dr. C. S. Dodd; vice-presidents, Drs. J. M. Williams, and F. W. Hains; secretary, Dr. L. S. Early; corresponding secretary, Dr. W. C. Powell; court medicale, Drs. J. Bolling Jones, W. P. Hoy, F. W. Hains, J. R. Beckwith and R. A. Martin. The annual banquet at the Petersburg Hotel followed the meeting.

The New Surgeon-General Of The Army.

General Merritt W. Ireland, who was appointed surgeon-general of the U. S. Army October 3rd, to succeed Surgeon-General William C. Gorgas, retired, is a native of Indiana, and is 51 years years of age. To fill his present office, he had to return from France, in which country he had been since the arrival of American troops, as surgeon-general of the American Expeditionary Forces. General Ireland was universally popular in France and the good work done by the medical department abroad is considered to be in great measure due to his ability, energy and resources.

Upon his retirement, General Gorgas resumed his work as director of the yellow fever campaign for the Rockefeller Foundation and it is expected that he will shortly leave for South and Central America to direct operations there.

The Southside Va. Medical Association,

Which was to have held its regular quarterly meeting at Hopewell, Va., December 10, was postponed after preliminary announcement of the meeting had been made.

Dr. and Mrs. Hugh McGuire,

Alexandria, Va., visited relatives in this city last month.

Dr. Joseph M. Burke,

Petersburg, Va., was in November elected a member of the Board of Aldermen of that city.

Dr. F. Waring Lewis,

Of Ellis Island, N. Y., after an absence of nearly a year, had a short furlough and spent a few days at his old home, Morattico, Va., last month.

Incident In Dr. Bryan's Career While in France.

It has only recently been made public that Dr. Robert C. Bryan, of this city, while connected with an American hospital near Paris, in 1916, had the honor of ministering to Field Marshal Foch, of the French army, after an automobile accident. Answering an emergency call which came to the hospital, he found the patient, whom he recognized as a general, to be seriously hurt and suffering greatly from shell shock, and, when he left him at a hos-

pital after rendering what service he could, thought he was in practically a dying condition. The next day, upon inquiry, he was told that the general had gone. "Yes, gone beyond," replied Dr. Bryan. "Oh, no," the Frenchman protested, "gone back to the front. The attention given him was in time to save him."

Not believing a man so badly injured could have recovered sufficiently to return to the front in so short a time, Dr. Bryan felt satisfied that Foch had died and that the surgeons had been instructed to say that Foch had returned to the front, in order not to demoralize an army that idolized him. Upon Dr. Bryan's return to this country, when he noticed references to Foch in the newspapers, he thought some one was impersonating him so as to keep up the morale of the French army, which had such unbounded confidence in his ability. Not until last month, when the souvenir programs of the Parisian Symphony Orchestra displayed an unusually distinct photograph of Foch, showing the scar of a wound running across the right eyebrow almost to the bridge of the nose—one of the cuts which Dr. Bryan himself had treated—was Dr. Bryan sure that Foch was still alive, and then he told this episode about which he had remained silent, thinking the French only pretended that Foch was still alive.

Porto Rico And New Zealand Also Visited By "Flu".

It was estimated the latter part of November that there were 60,000 cases of Spanish influenza in Porto Rico, and the epidemic was also taking a heavy toll in New Zealand, especially among the natives. Hotels and breweries were closed in the latter place and newspapers were asked not to publish mortality returns. The Government also sanctioned the discretionary closing of banks, owing to their depleted staffs.

Charlottesville Board Of Health.

Drs. W. D. Macon and J. C. Flippin have been elected the medical members of the Board of Health of Charlottesville, Va., and the Board was authorized to nominate a suitable health officer to be elected later at a joint session of the council and aldermen.

Wounded And Sick From Overseas To Be Sent To Hospitals Near Homes.

Plans perfected by the Hospital Division of the War Department, provide that wounded and sick soldiers returned from the American Expeditionary Forces will be placed in hospitals in the section from which they were inducted. These hospitals are so placed that the maximum distance a relative will have to travel to visit a patient will be 300 miles. The only exception will be in cases of men whose injuries require that they be sent to special hospitals where facilities for their treatment have been provided. In addition to the 15 hospitals, with a bed capacity of 22,068, at the ports of debarkation, New York and Newport News, the Hospital Division will have at their disposal a total of 75 hospitals with a capacity of 104,231 beds.

At the end of four months, it is expected that 50,000 wounded soldiers will be sent to these hospitals. They will be moved from the hospitals at the ports of debarkation in special hospital trains whenever their wounds are such that they cannot travel in the regular Pullman sleepers. There are four of such hospital trains, each consisting of seven cars, with a capacity of 172 to each train. When patients are sent by Pullman, special hospital kitchen cars, of which there are 20 in this country, will be attached to the trains.

Dr. T. Edwin Baird,

Norfolk, Va., was a recent visitor in Waverly, Va.

Dr. and Mrs. Camillus F. Eason,

Of Hickory, Va., spent sometime in this city in November.

Influenza Epidemic Killed Over 300,000.

Between 300,000 and 350,000 deaths from influenza and pneumonia have occurred among the civilian population of the United States since September 15, according to estimates made by the Public Health Service. These figures are based on reports made by cities and states keeping accurate records, and public health officials believe they are conservative. About 20,000 deaths occurred in camps in the United States.

The epidemic persists, but deaths are fewer, and the disease as it is now appearing in many communities is believed to be sporadic and not to indicate a general renewal of severe epi-

demic conditions. There were more deaths from the epidemic in the United States than there were deaths from all causes among the American Expeditionary Forces from the landing of the first unit in France until the cessation of hostilities.

Dr. J. B. Abbitt

Has returned to Norfolk, Va., after a visit to relatives at his old home in Appomattox, Va.

Dr. Samuel S. Guerrant,

Callaway, Va., was elected one of the directors of the Virginia Horticultural Society at its meeting in Lynchburg, early this month.

Antivenereal Campaign Must Not Relax.

Public Health Reports for November 22, states that the end of actual fighting in the world war does not lessen the necessity for the campaign against venereal diseases. Rather, it becomes a greater war emergency measure than ever. Cessation of hostilities centers attention on the return of the victorious American forces. On entering the service the men became subject to Army and Navy discipline, which, in the control of venereal diseases within the ranks, is rigid. Prior to demobilization, the tense fighting morale of the forces is bound to relax. The men will be buoyant in spirit and eager to celebrate. When mustered out they will return to conditions in civilian life which have been responsible for venereal disease. Many of them will contract it as a result. Unless all cases of venereal disease have proper treatment during the period of reconstruction, the scourge will reach alarming proportions. The time from now on is the most critical of all.

No More Physicians To Be Commissioned In The Medical Corps.

At ten o'clock, on the morning of November 11th, the War Department discontinued the commissioning of physicians in the Medical Corps. This condition, in all probability, is permanent and no further consideration will be given applicants for a commission in the Medical Corps until further notice.

Orders were received at Camp Greenleaf, Ga., November 26, that all medical officers in training who had reached the age of fifty years should at once be given their honorable discharges.

Condition Of American Prisoners.

The War Department authorizes the following statement in regard to the physical condition of returned American prisoners, based upon a cable from General Pershing, November 29:

"American prisoners released from German prison camps complain of poor, scanty food and bad housing conditions. Only a small percentage of those who are sick are hospital cases; the majority are suffering from slight colds. Practically all recover rapidly with proper food and housing.

"There is as yet no evidence of discrimination against Americans. Amongst 7,000 prisoners of all nationalities, there have been no authenticated instances of brutality against Americans.

"The majority of American prisoners state that the German soldiers also suffered food privation, but that in cases where supply of food was insufficient, the food for prisoners was cut off before that for German soldiers."

Dr. George A. Stover,

South Boston, Va., has been re-appointed chairman of the chapter of the American Red Cross in that place.

Dr. J. C. Wysor,

Clifton Forge, Va., was a visitor in Lynchburg, Va., the latter part of November.

Dr. Walter Hargrave,

Of West Point, Va., who has during the war been connected with the medical corps of the navy and stationed at Cape May, was called for overseas duty and sailed from Newport News for France, the latter part of November.

An Unborn Baby Shot Through The Leg Still Lives.

According to the *Chattanooga Daily Times*, possibly one of the most remarkable cases that has come to the attention of Chattanooga physicians, is that of a negro woman who was shot by her husband, through the abdomen, early this month. Her unborn baby received the bullet in one of its legs. It has since been born and authorities at the hospital stated it had every chance to live. As far as is known, this is the first child reported as coming into the world alive bearing a bullet wound received before birth. In shooting his wife, the man

placed the pistol so close to her that the bedspread was powder-burned. The woman was moved shortly after the shooting to the hospital and the child was taken.

Correction With An Apology.

Well may Dr. Walter Slicer, of Roanoke, Va., be thinking, in the words of Mark Twain, "The reports of my death are very much exaggerated," for we truly had him dead and buried in our November issue, but we are glad to state that we have since been informed that he is much alive, and at last account was in Augusta, Ga. Our information about his death came from a reliable source, as we thought, but much more dependable is this last as it comes from a member of his family, to whom sympathy was extended.

We regret the error in our last issue and are glad to have this opportunity of correcting it, and wish for Dr. Slicer many years of health and prosperity.

Hospitals To Care For Discharged Soldiers.

New hospitals at Norfolk, Va., and at sites yet to be selected in North Carolina, the Massachusetts Berkshire hills and at Seattle, are planned to care for discharged sick and disabled soldiers. Additions are also planned for the marine hospitals at New Orleans, Boston, Chicago, Cleveland, Detroit, Evansville, Louisville, San Francisco, St. Louis and Wilmington, and at the Ft. Stanton, New Mexico, sanatorium. It was stated that hospitals costing \$26,000,000 and 13,000 beds are necessary to care for the discharged men.

Dr. Albert B. Siewers,

Who graduated at the Medical College of Virginia in 1918, and was appointed an interne at the New York Neurological Institute, has been on a visit to his parents in this city, while recuperating from an operation recently performed in New York.

Dr. and Mrs. John W. Winston

Have returned to their home in Norfolk, Va., after a visit to relatives in Bowling Green, Va.

British Hospitals Have Treated More than 2,000,000 Cases.

According to information obtained from a review of the United Kingdom's medical, surgical and nursing work, during more than fifty-one months of the war, the hospitals in Great

Britain and Ireland have treated 2,391,349 British and Indian troops and German prisoners wounded in the various theatres of war. The treatment of the 41,819 German officers and men was "in striking contrast of the treatment meted out to allied prisoners in German hands."

Dr. W. Brownley Foster,

Roanoke, Va., and family, spent the Thanksgiving holidays with relatives in this city.

Red Cross Workers On Job.

Among the first Americans to reach Metz, after the signing of the armistice, were a doctor and another worker of the American Red Cross, who were on their way to Mannheim, to investigate the condition of wounded allied prisoners. They reached there November 17, a few hours after the last German soldiers had been withdrawn, and found at a hospital forty-five wounded American soldiers, but the Germans had taken with them all medical supplies.

Doctors Among Officers of Knights Templar.

At the annual conclave of the Grand Commandery, Knights Templar of Virginia, in Richmond, November 28, Dr. Robert P. Carr, of Norton, was elected grand commander, and Dr. M. J. Payne, of Staunton, grand junior warden.

Work Of Influenza Committee in Petersburg.

A report of work done during the influenza epidemic, signed by Dr. R. A. Martin, city health officer, Dr. William F. Drewry, chairman of general committee on influenza, and Miss Eugenia Bryant, secretary of the local Red Cross chapter, was recently submitted to the Petersburg, Va., Health Board and to the executive committee of the local Red Cross. Owing to the proximity of Camp Lee and the number of transients incident thereto, the problem in Petersburg was a more difficult one than would have been the case had not the city been so crowded.

As in other cities, a large appropriation was made by the city and some voluntary contributions, and the high school building was converted into a hospital. Three hundred and one patients received treatment there and twenty-nine of these died. Most of the latter were brought to the hospital in advanced stages of pneumonia. When the school was closed as a

hospital, the four patients still needing attention, were transferred to the Petersburg General Hospital, which also rendered excellent service all during the epidemic. The medical department at Camp Lee and the Red Cross at the Camp, the War Camp Community Service, the U. S. Public Health Service and State Health Department, as well as many private organizations and individuals, also rendered valuable services.

The total number of influenza cases reported to the health officer during the period of quarantine, was over 7,000. The total number of deaths due to influenza and its complications was 140—66 white and 74 colored.

Student Army Training Corps Demobilized.

The student army training corps of the Medical College of Virginia was demobilized December 16. Because of the influenza epidemic, announcement has been made that the final examinations for degrees at this school will not begin until the middle of June.

Dr. and Mrs. T. W. Dew

Have returned to their home in Spotsylvania County, Va., after enjoying a motor trip of several days to Richmond and Camp Lee.

Dr. Samuel Sauders, Jr.,

Formerly of this State, but who has for several years been connected with the Public Health Service, has just been transferred to Raleigh, N. C., where he will be for sometime in charge of rural sanitation work in Wake and Durham Counties.

83% Of Officers In American Army of "Superior Intelligence".

According to tests made by the division of psychology of the medical department of the Army, 83 per cent. of the officers in the American army had the "superior intelligence" required for a commissioned officer; more than 26 per cent. of the enlisted men were considerably above the average intelligence and of this number, 11 per cent. had the "superior intelligence" qualifications for commission.

Of the men of the National Draft Army, less than 2¼ per cent. "were found to be so deficient in intelligence that they were recommended for discharge." To obtain these averages, tests of numbers of men were made at every camp in the United States. One million five hundred thousand were given the mental

tests, and, of that number, only half of one per cent. were found to be so deficient in intelligence that they were recommended for discharge.

Dr. Ramon D. Garcin,

Of this city, was appointed one of the district deputy high priests at the grand annual convocation of the Grand Royal Arch Chapter, of Masons of Virginia, in Richmond, November 27.

Dr. M. S. Brent,

Petersburg, Va., was a visitor at his old home near Heathsville, Va., the latter part of November.

Dr. J. C. Bodow,

Hopewell, Va., has been a recent visitor to relatives in Harrisonburg, Va.

Ground Broken For Retreat For Sick.

On the 12th of this month, ground was broken in this city for the new building for the Retreat for the Sick, which is to be located at the corner of Mulberry Street and Grove Avenue. The new building will cost between \$150,000 and \$175,000.

Dr. Mary E. Brydon,

Of the State Board of Health, recently gave a course of lectures and instruction at the Radford, Va., Normal School, to members of the class which graduates in the middle of the session.

Infected Teeth May Cause Insanity.

Dr. Henry A. Cotton, of the New Jersey State Hospital, at Trenton, is quoted as stating that insanity is frequently caused by infected teeth, the extraction of which in many cases will effect a cure. Removal of tonsils and, where possible, clearing up of gastro-intestinal tract, have also proven to be successful methods for curing insanity. "Infection of the gastro-intestinal tract has been treated by frequent irrigations of the stomach. In a certain proportion of cases, especially those in which the tooth infection is of recent origin, merely extracting the teeth will clear up the mental condition."

Red Cross Hospital in Genoa.

An American Red Cross Hospital has been turned over with complete equipment and personnel as a gift to the United States Navy

from the American Red Cross in Italy, and will, in the future, be under the Navy's direct control. Three weeks after the request was made by the American government for such a hospital, it was in complete running order. It has thirty-two beds and is in a modern villa, situated on a hillside in a fine park. Dr. J. C. Clark, U. S. Navy, is surgeon-in-charge.

Dr. J. J. Terrell,

Campbell County, Va., was elected surgeon-general of the Grand Camp of Confederate Veterans, at the annual meeting of the Camp in Lynchburg, Va., December 11.

Many Nurses Have Influenza.

Eleven nurses being ill with influenza at the Danville (Va.) General Hospital, about the middle of this month, made it necessary to decline any but emergency cases until conditions improved. The hospital was practically put out of business temporarily.

Obituary Record.

Dr. Paul Morgan Strother.

Of Lynchburg, Va., died November 26, as a result of injuries received in an automobile accident near Amherst C. H., the previous day. Although the car plunged over an embankment, neither Dr. Strother nor the man driving the car was thought at first to be seriously hurt and both walked a little distance and secured another car and returned home. Not until the next afternoon was Dr. Strother's condition considered critical and he died several hours later.

Dr. Strother was born in Lynchburg, thirty-four years ago and, after attending the Virginia Polytechnic Institute, studied medicine at the University of Virginia, from which he graduated in 1906. He was a member of the State and other medical societies and was prominent in the social and professional life of his community.

Lt. W. H. Whithead, M. C.,

Who was a son of Mr. and Mrs. C. Whitehead, of Nelson County, Va., died in New

York, November 23, of pneumonia, with which he was stricken at Hoboken some time before, as he was about to embark for France. He received his academic education at William and Mary College and Richmond College, and studied medicine in Baltimore, and shortly after receiving his medical diploma located at his old home to practice. He was thirty-eight years of age and entered the army training camp at Ft. Oglethorpe, Ga., last August. Besides his parents, he is survived by a large family connection.

Dr. George K. Sims,

A highly esteemed doctor of this city, died at his home here November 21. He was born in Louisa County, Va., March 18, 1865. He was an alumnus of the Virginia Military Institute and graduated in medicine at the University of Virginia in 1894. He was a surgeon in the United States Army for four years during and just following the Spanish American War. Dr. Sims is survived by his widow, a brother and several sisters.

Dr. David Q. Will,

Of Rockingham County, Va., near Timberville, died November 13, from pneumonia following influenza. He was forty years of age and a graduate of the Maryland Medical College in 1902. He was a member of the Medical Society of Virginia.

Dr. James Page Massie,

A native of Amherst County, Virginia, but who formerly practised in this city, died December 7 at his home near Sandidges, Va. His death was due to pneumonia following influenza. He was 52 years of age and graduated in medicine from the University of Virginia in 1888 and from New York University Medical College in 1889.

Dr. Stephen James Hawes,

A graduate of the Medical College of Virginia, in 1911, died recently in France after a brief illness of pneumonia, resulting from Spanish influenza. He was first lieutenant in the medical corps of the army and stationed at Camp Jackson, Columbia, S. C., before going overseas. Prior to entering the service, he was engaged in the practice of his profession at Dover, N. C. His widow and small son survive him.

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Original Communications.

PROSTATIC OBSTRUCTION WITH SPECIAL REFERENCE TO ANAESTHESIA.*

By ARTHUR H. CROSSBIE, Major M. C., Boston, Mass.,
Recently Surgeon-in-charge, United States Army
General Hospital No. 22, Richmond College,
Virginia.

When your president, Dr. Murrell, asked me to speak to you on this subject, my first thought was that it would be impossible, as I knew that I would have no time to prepare a paper, owing to the rush of overseas patients that we have. However, as this is a subject that appeals to me very strongly, I decided to inflict myself upon you with a paper that must be rather rambling in character.

There are all degrees and kinds of prostatic disease. Of course, they fall at once into two large groups, one the benign and the other the malignant. On the malignant I will not dwell tonight.

The benign group divides itself into two classes, one the fibrous type, usually following a long standing chronic inflammation in which pathologically there is a marked increase in the fibrous interstitial tissue and a decrease and crowding out of the glandular tissue. The other type is the glandular hypertrophy which really is an adenoma. In this variety there is a very marked increase in glandular tissue with dilatation of the acini and a decrease in fibrous tissue. Occasionally, we find a combination of both glandular hypertrophy and fibrous prostate in the same gland. One part of a lobe

may be fibrous and the other show glandular hypertrophy.

Again the benign prostates fall into two more groups, the obstructing and the non-obstructing.

The non-obstructing prostate I will pass over with a few words as it is in the obstructing prostate that the choice of anaesthesia plays such an important part. The non-obstructing prostate is ordinarily not removed except to relieve very marked frequency and urgency.

The obstructing prostate is the one that carries especial danger with it. It is the one where the kidneys become impaired by back pressure and is the one we have to handle with especial care.

Just a word as to the nature of the obstructing prostate. An important point that we should all remember is the fact that the size of the prostate has absolutely no relation to the amount of obstruction. The largest prostate I have ever seen weighed four hundred and twenty (420) grams and had a bladder residual of only eight ounces. On the other hand, I have seen many men with a small fibrous prostate that was hardly palpable by rectal examination, with a bladder distended chronically well above the umbilicus.

There are all degrees of obstruction, all the way from the man who has frequency and yet empties his bladder, to the man who, in spite of the fact that he urinates frequently, leaves a large amount of urine in his chronically over-distended bladder. As you all know, the man frequently is entirely unaware of the fact that he does not empty his bladder. This is the dangerous type. Although his health may not apparently be much affected, we know that his

*Read before the Richmond Academy of Medicine and Surgery, December 10, 1918.

Authority to publish granted by Board of Publication, S. G. O.

kidneys are far below par, due to the back pressure. He is on the brink of a volcano and it takes very little to upset his equilibrium and cause death. It is this man whose anaesthesia and care must be so carefully considered. He is so much more critical than the man who has a small residual and who upon exposure or indiscretion develops an acute obstruction and suffers so extremely from an acutely overdistended bladder.

Just a word now as to the symptoms of the prostate with the chronically overdistended bladder. The clinical symptoms arise generally from one or both of two causes. One is the local trouble which causes frequency. This may or may not be marked. The other is the renal insufficiency caused by the kidneys working against back pressure for a long time checking the excretion of solids. As you all know, the specific gravity of the urine in these cases is invariably extremely low. The renal insufficiency met with in prostatic obstruction is quite a different thing from the renal disease with which the internist deals, and it was some time before the leading internist of the country recognized the condition as one of renal insufficiency. The cardinal differences are the lack of oedema and the fact that the blood pressure is not necessarily high.

I will mention a few of the leading characteristics. The tongue is dry and coated, skin dry, face flushed. Flatulency is a most important sign and is invariably present. In the days past, before we recognized all the symptoms of this disease, I have seen a laparotomy done on one of these men a few days after prostatectomy, thinking that he had obstruction of the bowel.

There is apt to be considerable loss of weight. Not infrequently one sees such a patient with the typical facies of malignant disease. I recall especially one man who had been under observation for several weeks for carcinoma of the stomach. He had had a series of bismuth radiographs taken which were negative. He had so much flatulency that it was some time before the physician discovered that he was carrying about forty (40) ounces of residual urine in his bladder. In addition to the above symptoms there is apt to be lassitude and sluggish mentality which may run into a mild delirium.

The question now arises as to how to handle

these cases. The Urologist frequently makes his diagnosis quickly merely by palpation of the bladder. Rectal examination of course in all cases is essential to rule out malignant disease and to determine the nature of the prostate as to whether it is fibrous or glandular.

If the urine is clear and shows no sign of bladder infection it is always better not to introduce anything into the bladder. The man with non-infected urine has received no immunity as the man with infected urine has, and the single introduction of an instrument or catheter may set up an ascending infection through his dilated ureters that may quickly cause a fatal termination. As soon as the diagnosis is made of the benign prostatic obstruction with a large amount of residual urine, there is but one thing to do, and that is to give prompt and adequate drainage for the bladder and kidneys with the least possible shock to the patient.

In the last ten (10) years the advance in the treatment of prostatic obstruction has been most remarkable. The two stage operation saved many lives and then the change from ether to some other form of anaesthesia has saved many more. I remember so well about ten (10) years ago, I was helping Dr. Arthur L. Chute, of Boston, open a bladder for drainage in a man with a very large residual. Following the operation the man went into a mild delirium and simply petered out. He passed practically no urine after the operation. Dr. Chute remarked then that he believed that it was the ether that had killed the man. Since that day we have never opened a bladder with much residual except under local anaesthesia.

The most satisfactory anaesthetic is one per cent. novocaine and adrenaline. As much of this is used as necessary, without danger. The proceeding is simple and if properly carried out the operation can be done with little pain. The one thing that causes pain and cannot be controlled except by care is pressure on the overdistended bladder. This is not controlled by the local anaesthesia. However, if care is used to avoid as much as possible pressure on the bladder, the pain is slight.

It is best to use a 10 c.c. syringe with a long needle. The first step and the most important one is thorough infiltration of the skin along the line of incision. The needle is then thrust

deeper and a few c.c. injected into the muscle and fascia. Gentle retraction exposes the peritoneal fold. This fold is pushed upwards by gauze dissection. It is here that the pain is caused. As soon as the bladder wall is exposed a little novocaine is injected into the bladder wall. As a rule, not over 30 c.c. is used in the whole operation.

Two stay sutures of silk are then passed through the bladder wall and the bladder opened between them with a sharp knife. The whole bladder is allowed to be emptied, no matter how great the distention is. With adequate drainage there never is any harm in completely emptying an overdistended bladder. The prostate is then examined with a finger and the bladder palpated for stones. If any are present they are removed. A half inch rubber tube is then introduced into the bladder and a rubber wick to the prevesical space. The fascia and skin are then closed to the tube. The tube is held in place by a silk suture passing through the skin and fascia. No particular care is taken to close the bladder tightly about the tube. It is rarely necessary to put any stitches in the bladder wall.

The next few days are the most important in the whole time, fully as important, if not more so, than the days after the second operation. The problem is to get the kidneys back as near to normal as possible and this is done by forcing fluids, getting the patient up at least once every day in a wheel chair and putting him out doors if possible, and forcing the bowels. The forcing of fluid starts at once by ingestion of large amounts of water. We try to get him to drink at the rate of a glass an hour while awake. We are not satisfied until the output of urine measures one hundred (100) ounces in twenty-four (24) hours. If there is difficulty in getting the patient to drink enough water, salt solution is given under the breasts at the rate of one thousand (1,000) c.c. every six (6) hours.

Not infrequently for the first twenty-four (24) or forty-eight (48) hours after the first operation there is a large output of urine. Do not count too much on this as the drop is most apt to come on the second or third day, and you must anticipate it or you will lose your patient. I recall well a man nearly lost some years ago by not starting soon enough. He was a poor risk to start with, but after

opening the bladder he excreted eighty (80) ounces the following twenty-four (24) hours. The next day forty-five (45) ounces and the next fifteen (15) ounces, and went into coma for six (6) days. By forcing the salt solution, we finally pulled him out, but it was three months before we dared do the second operation. In this case it is interesting to note that on the fifteenth day following the second operation his bladder was entirely closed, and he walked out of the hospital and rode home.

When shall we do the second operation? The only time limit I should set would be the minimum. Never under a week and never until you are satisfied with the patient's condition, even if you never operate. If in doubt, do not operate! By doing cystostomy you have entirely overcome the condition that was pulling the man down. You can now sit back and wait until the patient's tongue is clean and moist, his bowel distention gone, his appetite good, kidneys excreting around one hundred (100) ounces and his strength and color good.

The choice of anaesthetic for the second operation now comes. As in the first operation, I consider ether barred for the following reasons: First, ether unquestionably checks excretion from the kidneys, temporarily at least, and we have not a moment to lose. Second, there is quite a long period following ether when the patient is unable to retain fluid in his stomach. More valuable time lost. I have seen a man excrete not enough urine in twenty-four (24) hours following ether to fill his suprapubic tube. That means a long hard fight to overcome the last time.

The anaesthetic used must be one of short duration and one that will not in any way depress the kidneys and will not interfere with the ingestion of water. Some prefer nitrous oxide gas or gas oxygen. I have used both of these but I always feel that there is more bleeding than in spinal anaesthesia, and excessive bleeding following a supra-pubic prostatectomy is annoying and always perplexes one as to whether to pack or not. I much prefer not to pack if it can be avoided.

The anaesthesia of choice for me is spinal. I am afraid I cannot explain in proper detail the method used, as I have never given it. Dr. Freeman Allen, of Boston, one of the pioneers of anaesthesia, has always given it for me. My impression is that he uses one and one half

(1½) c.c. of 5 per cent. solution of novocaine diluted with an equal volume of spinal fluid. The method used by him can easily be obtained from articles he has written on the subject. As I told Dr. Murrell, the anaesthesia has always interested me more from the operator's point of view.

It makes an extremely satisfactory form of anaesthesia for supra-pubic prostatectomy. We use it also for perineal prostatectomy when necessary. The high Trendelenburg position used for this operation is uncomfortable for the patient without a general anaesthetic. Then, too, one must wait at least half an hour after the anaesthesia is given, before elevating the buttocks in order not to get too high an anaesthetic.

Ordinarily a wait of fifteen to twenty minutes is enough to give perfect anaesthesia. In rare instances one injection is not enough and it has to be repeated. The second dose should never be given under one-half hour of the first, in order to make sure the first did not work. I know in one case we were in too much of a hurry with the second dose and the patient went into profound collapse, which gave us a few very unpleasant moments.

Usually one injection is enough. The patient is conscious that something is being done, but as a rule, there is no real pain. During the operation, that can be done leisurely, the patient is encouraged to drink hot tea or water.

Frequently during the operation symptoms develop which make you anxious, but which quickly pass away. There is always a marked fall in blood pressure and the color is apt to become ashen. After the first half hour the color begins to improve and, as a rule, by the time the patient is in bed again, his color has almost returned to normal. The blood pressure comes back to normal in about two (2) hours. It is usually five (5) to six (6) hours before full sensation returns to the legs.

The only after effect of the spinal anaesthesia that I have noticed is occipital headache that comes on in a small percentage of cases usually on about the third day. It occurs much more frequently in diabetic cases. This headache is very annoying and is apt to last two (2) or three (3) weeks. It invariably disappears in time.

I will not dwell at length on the operation itself, as the operation is comparatively simple

and, paradoxical as it may sound, is of minor importance compared with the care before and after operation.

The method I use is with the fingers of the left hand in the rectum, lift the prostate and enucleate with the forefinger of the right hand. After the operation is complete a catheter is introduced through the penis and a half inch suprapubic tube sewed in above. Usually I do not irrigate at all. Sometimes just enough to make sure the tubes are not blocked. Better irrigate not at all than too much.

While the patient is on the table I invariably give one injection of salt solution under pectoral muscle. After the patient returns to bed the proceeding is much the same as after the first operation. Force fluids, force the bowels and get the patient up as soon as possible. Do not let these old men slump down in bed and stay there. To be successful in this line of work one must seem a little brutal and more or less Czar. Do not let a man lie in bed just because he says he is too tired to get up. Get some husky nurses and get him up. If the kidneys lay down and cease to excrete, force the salt solution to the limit, both by hypodermoclysis and by rectum. The only limit is oedema and you rarely get it in these patients.

The suprapubic tube is removed just as soon as the urine is free of occult blood. The catheter remains until the suprapubic incision is closed. The longer the catheter is left the more danger there is of epididymitis, which is very distressing but not dangerous.

This, gentlemen, is roughly our procedure in this class of prostatic obstruction. This has been dictated in a hurry, on the spur of the moment, and I have doubtless left out many important details. If you will kindly jog my memory, I will gladly fill out as well as I can any gaps I have left.

260 Clarendon Street.

A PLEA FOR THE OPERATIVE CURE OF HERNIA.

By G. PAUL LaROQUE, M. D., F. A. C. S.,
Richmond, Va.

The records of recruiting stations, draft boards and army cantonments have shown a very large proportion of men of military age in this country to be afflicted with hernia.

Largely, if not solely, for purposes of making efficient men for army service, government orders required the men in cantonments to have

their herniae operated upon. To these men their selection for military service was attended by this additional blessing for, while they were cured of a deformity primarily for the advantage of the nation and democracy, they are rendered also more able bodied for the service of themselves and families, now that peace has come.

Statisticians state that about one-tenth of the population of the world is affected with some variety of hernia most commonly inguinal in location.

The usefulness and earning capacity of the victims of hernia are invariably diminished, and the condition in many ways endangers life. From most departments of public service a man with hernia is debarred. He is unfit for the national army, navy and marine service, police duty, and indeed, for any occupation demanding for its pursuance able-bodied individuals. Many life insurance companies reject applicants for policies affected with hernia, and all such corporations place upon such applicants a greatly diminished life expectancy and an increased insurance rate. Anyone afflicted with hernia is no more fitted to serve himself and family than he is the national government or municipality, and to neglect or treat lightly an affection which is universally recognized as a cause of diminished life expectancy and physical incompetency is incompatible with the duty of a conscientious physician.

Perhaps the most immediate and grave danger of hernia is strangulation. Without attempting to estimate the frequency of this complication, it is sufficient to bear in mind that any case of hernia may at any time become strangulated. While this accident most commonly occurs in those in whom some such predisposing cause as lifting or otherwise straining the abdominal parietes is incident to their occupation or habits, yet it may occur in any one during a paroxysm of coughing or sneezing or during any sudden effort, and to these every one is essentially liable.

Incarceration is favored by the very existence of constipation, a common attendant symptom of hernia. Inflammation is invited by the peritoneal contusion incident to all cases treated by truss, since the accurate fitting of such mechanical devices is impossible, and the maintenance of fit generally impracticable. The recurrent colic, indigestion, and other functional

disturbances forming a part of the symptom complex of most hernias, are attended by the same impairment of health and dangers of gastro-enteric catarrh, due to other causes in addition to the menacing effects of the hernia itself.

The recurrent, often constant, backache and general fatigue, incident to complete and often incomplete hernia, caused by irritation, traction upon and distortion of the delicate highly organized nervous structures within the peritoneal cavity, are often debilitating and causative of semi-invalidism.

It is difficult to estimate, even approximately, the number of vague cases of indigestion, obscure backache, and other generally miserable complaints due to this cause. Such pernicious effects of hernia should not be overlooked, and when a careful and intelligent study of each case is made, many such crippling influences may be discovered.

And yet the victims, indeed many of their medical attendants, often attribute little bad influence to an inguinal hernia, uncomplicated by incarceration or strangulation, and too often such a condition is treated with no consideration of bad effects and frequently without even a diagnosis.

The proper treatment of hernia has been attained as a result of steady uniform progress, rather than by sudden sensational leaps, such as we have observed in the management of many fashionable affections, many of which are decidedly less menacing to life and health than hernia, but in which the obvious results have been apparently more brilliant. Moreover, patients and physicians have heard of, or personally observed, so many cases of hernia, in which radical operative treatment has been attempted and failed, that they tend to look with skepticism upon any offer on the part of a surgeon to cure the affection in such a way as to assure against recurrence.

Such a view of the subject, however, at the present time, is not justifiable, and it can be safely said that, in the hands of a skillful operator, in a proper hospital, almost every case of hernia, barring those of enormous size in very old people, can be positively and permanently cured. The chief complaint of patients after operation is that operation had not been performed sooner.

It is scarcely necessary to reiterate the annoy-

ances, difficulties, uncertainties, and in many cases, serious dangers incident to the treatment of hernia by truss. No individual is cured by the truss method and the harness must be worn throughout life. A serious objection is that many patients must, either from election or necessity, finally be treated by the operative method. With the sac and tissues so altered as a result of the trauma caused by the truss, the operation is difficult and attended by many added dangers in an individual who is much older and less fit for surgical treatment.

Perhaps the greatest objection to the truss treatment of the affection is the constant danger of the instrument to the patient's life. With a false feeling of security, such individuals are in constant danger of such complications as inflammation and suppuration of the sac or its contents and at any time the hernia may become strangulated not only at the hernial ring, but also by slipping past and being held in this position by the truss.

Many competent surgeons, however, advise the use of a truss in cases of hernia in children under three years of age, claiming that more than one-half of such cases become inconspicuous in size without operation. The risk of strangulation, however, is admitted by all to be greater in children than in adults, and this should be borne in mind by the doctor and explained to the parents before advising against operation. So that while it is true that many cases of hernia of small size, in young children, disappear spontaneously, yet the total mortality in cases not treated by radical operation is perhaps as great as, if not greater than, in those subjected to operation. The operation in children is uniformly successful, without danger to life, and has the advantage of precluding the possibility of grave complications, thus giving a corresponding comfort to the conscience unattainable through the application of a truss.

The need of general anaesthesia for the performance of the operation upon adults has been greatly overestimated, even at the present time and in the near past. Except in children and rare cases of "chicken-hearted" adults, it has been positively demonstrated in many thousands of cases that by the use of cocaine, novocaine or apothesine, practically every case of uncomplicated hernia not too

large, can be permanently and painlessly cured with operation under local anaesthesia.

It is true the operation under local anaesthesia may require a longer time and that the patient is given the opportunity to note the embarrassment on the part of the operator, if he be unskilled, but fortunately there are plenty of surgeons who have plenty of time and plenty of skill. Local anaesthesia in no way precludes the performance of the efficient operation for uncomplicated hernia and the surgeon or the patient who should have a recurrence after operation, performed under local anaesthesia, would have the same recurrence after the operation done under general anaesthesia.

The radical operation for the cure of hernia should be performed as early as possible after the development of the affection, while the hernia is simple and small, the structures non-attenuated and undisturbed in their anatomic relations, and before the onset of secondary impairment of health.

It is but right to add that the operation for hernia is not one of the easiest, simplest operations of surgery. Indeed, the poor results sometimes seen from this treatment, employed by the unskillful, are in no small degree responsible for the belief that the radical treatment does not guarantee against recurrence. The operation should therefore be performed by those possessed of technical skill and judgment and in properly equipped hospitals.

There should be a renewal of interest in the cure of this affection, particularly on the part of the general practitioner and family physician; for, while it will doubtless be not many years before the public at large will learn, through surgeons and cured patients, the advantages of the operation over the truss method for the treatment of the malady, there should be active co-operation on the part of the family doctor as there is on the part of army, navy and other public officials to this purpose.

MENTAL DEFICIENCY, A VITAL QUESTION OF THE HOUR.

By C. BANKS McNAIRY, M. D., Kinston, N. C.
Superintendent of The Caswell Training School.

We are living in an age when hours and days witness changes that in the past meant years without number. Nations change in a single day; the strongest, most efficient autocracy, as

it were in a moment becomes a democracy.

With the arrogance of a Titan, William of Hohenzollern challenged the world. This mighty military monarch of earth, proud as Lucifer, this most famous swaggerer, this ruler, knowing no limitations, claiming omnipotence, "Me and Gott," has been ignominiously hurled sprawling from his throne. This again brings before us with renewed emphasis what a mental defective military genius can do. One would scarcely have believed a few years since that it would be possible for one man to so upset all the ideas of civilization and education, and by his single command bring about a war, prodigious in geographic and social extent; unprecedented in expenditure of lives and treasure; unparalleled and colossal in atrocities, cruelties and massacres.

Wonderful are the revelations and discoveries that have constantly been revealed during these times. As never before the world is beginning to face the truth that as individuals and as nations we are responsible to a much greater extent than we ever dreamed for the conduct and welfare of each other. We have been bound together by brotherly love, we trust, with ties that can never be broken and we hope with the true spirit that conforms to the teachings of the Nazarene as revealed in His reply to the question, "Who is my neighbor?" Shall not the old question come to us with a force as never before, "Am I my brother's keeper?"

We have heard a great deal about the morale of the army, and the wonderful things that have been done for and taught our soldiers. They have been enlightened and educated as to the value of cause and effect. We believe that the whole world has been taught the value of the individual, common-place man. We can but believe that the ultimate result and future outcome of all this, the world's greatest tragedy, will be the common welfare of the masses, and this regard for the well-being and happiness of the masses will continue to be the supreme test of individuals and institutions as well as nations.

The selective draft has astonished us by revealing the many able-bodied men who are not capable of managing their own affairs with ordinary prudence. Of the men in the selective draft in North Carolina sent to Camp Jackson, 14 per thousand were not sufficiently strong

mentally to fight for the country that gave them birth.

The fact that only those without blemish are permitted to share the honors of defending our beloved America, and go forth across the mighty deep to carry the glad tidings of a world-wide democracy to the oppressed nations of Europe, where the strongest manhood, both physical and mental, have almost been annihilated, makes us view with more or less alarm the problems that must be met in the coming generations, in order that civilization may not retrograde. We must deal with the fact that in the breeding of another generation a great percentage of the true blood, physically, mentally and morally, has been destroyed; consequently it will be necessary to give more time and thought to the mating and breeding along lines of eugenics and heredity if we hope to maintain the present standard. And in doing this we must be governed not by sentiment but by common sense and scientific facts, remembering that like produces like. Under normal conditions the birth-rate in the undesirable greatly outnumbers that in the desirable. We fear there is to follow the most immoral period, as well as the most illegal heterogeneous matings that the world has witnessed since the intellectual fall of Athens. I would like to emphasize this fact; our standard of mentality and morality is at stake.

We believe the European nations, having been depleted of their manhood, will be impressed more favorably with quantity rather than quality of the coming generation, and forget that they are planting the seed, which in time is bound to uproot all the modern standards and true ideals of morality and a better civilization, which will prove the greatest handicap to social economy.

The women of the Juke family, a clan of several thousand imbeciles, criminals and ne'er-do-wells, have children on an average of 4.3 each. This is about twice the number born to college professors' wives.

In the October Journal of Heredity, page 269, Paul Popenoe says the study of the past and present members of the faculty of the University of Illinois, as given in the Alumni Record of 1913, shows that 1154 individuals were enlisted. Of this number 42 per cent., or 366 men and 123 women were single. The study was further limited to those who had

been married for at least ten years, and whose families, therefore, should be nearly complete. This reduced the number to 387 men and 28 women. The children of the 387 men number 806 or an average of 2.8 each. To the 28 women were born but 26 children, or less than an average of one each. Does this teach us that higher education and special intellectual attainment in women disqualify them for parenthood more than it does men of the same class? Or, are children more of a handicap to professional women than to professional men? Does it confirm the belief that the two-child family is now practically standardized among men of science? A study of a few years ago at the University of Wisconsin showed that the married members of the faculty had an average of about 2.5 children each. This high percentage is probably reached in very few universities, and it is useless to say it is inadequate to the bare maintenance of a given section of the population.

Galton made a study of famous divines and found them a moderately prolific race, rather under than above the average. If the clergy and the college professors, who should be considered leaders of morals as well as thought, hand down a posterity in numbers scarcely adequate to maintain their number, and believing as we do that morality and intellectuality are largely due to heredity, we must conclude that the percentage of morality and intellectuality is bound to become less each year, unless economic and social changes permit and encourage people of superior mentality and intelligence to have more children.

The social problem to which I wish to call special attention is; what can we best do to preserve humanity and to protect the unfortunate? 'Tis true we are awakened as never before, but this awakening brings to our view much more forcibly than heretofore the enormity of the situation and our inability, as individuals, states and nations to cope with the ever-increasing problem.

For years there has been put forth quite an effort, through private and state institutions in the United States, and especially north of the Mason and Dixon line, to cope with the problem of the feeble-minded; but in the most progressive States, Massachusetts, New York, Indiana, Pennsylvania, and many others, they have but as yet scarcely made an impression.

We, of the South, are only as yet awakening. In our own beloved North Carolina there are thousands, and we have only been able to provide for a few hundred while they increase rapidly.

We separate the feeble-minded into three general classes: idiots, imbeciles and morons. For convenience in grading and classifying, we usually subdivide each of these into two divisions—high and low.

An idiot intelligently sees nothing, feels nothing, hears nothing, does nothing, knows nothing; he simply lives alone—the solitary one. This is the lowest class of human beings: mere organism, masses of flesh and bone in human form. Lord Coke's definition is: "An idiot is one who from his nativity, by perpetual infirmity, is non compos mentis." Blackstone says: "An idiot, or natural fool, is one that hath no understanding from his nativity, and therefore is by law presumed never likely to attain any." Shakespeare speaks of him as: "One who holds his bauble for his God," and again "One who tells his tale full of sound and fury, signifying nothing."

An imbecile is able to see and to understand to a greater or less degree; is wanting in strength of mind,—weak, feeble, expressive of a certain degree of intelligence, but unstable, incapable, irresponsible; one who cannot take care of himself at all, (may do fairly well under the direction of another), the simpleton who thinks he is a man, who hangs on the skirts of society, the victim of some and the butt of others.

A moron is described as one who is capable of earning a living under favorable circumstances, but incapable, from mental defects existing from birth or early age, of competing on equal terms with his fellows, or of managing himself and his affairs with ordinary prudence. The high grade moron may be one of those known as odd, peculiar and erratic. Without revealing actual definite stigma the whole physique may so blend itself, or be warped by mental idiosyncrasies, as to give a general impression of something different from the ordinary. He may be physically normal and to all appearance mentally so, with a history of unusual precocity in childhood—the wide-awake baby, the child preacher, the baby musician, the mathematical prodigy, a phenomenal memory for dates and numbers with but little

recollection of daily events, doing and saying remarkable things, collects isolated facts with great avidity, which he can neither classify nor apply. Books and abstract subjects are devoured, but not assimilated. He may or may not keep pace in the school curriculum up to the point where mental limit is being reached. There is for him no future. In the moron there is a refinement of evil; the mental powers, subordinate wholly to a perverted moral sense, exhibit often a craftiness and skill truly satanic, while the not infrequent association of great physical stigma renders the recognition of this type, except by expert, impossible. They would literally deceive often the very elect. Quoting our late Senator, Col. W. D. Pollock: "These are society's damaged or defective seed corn."

While it is true that certain degrees of idiocy and imbecility do resemble that phase of insanity known as dementia, they are not identical. One may lapse into the other. Feeble-mindedness is the result of a brain defect, insanity the result of brain disease. Heredity plays a most important part in the transmission of idiocy and imbecility. The idiot and imbecile are the most repulsive and undesirable from observation view point, but not nearly so dangerous from a prolific standpoint as the high grade, known as the moron. These propagate much faster, their defects are much harder to recognize; they are usually physically perfect if not supernormal; as a general thing full of animalism, without the power of discretion and have not the ability to recognize the necessity of personal effort to control passions; therefore they go in the way of greatest temptation and least resistance, handing down their mental defects to embarrass and burden future posterity.

Here in our own State, I am thoroughly convinced after some yeears of study of this subject that as a State Institution we are not prepared to cope with this question to an extent sufficient even to make an impression toward removing the cause and bringing about methods of prevention. We trust we have been able to create some public sentiment and interest in the study of heredity and eugenics, and that the time is not far distant when our children shall be taught scientific facts about human beings and their mating to that extent that they may not be governed by sentiment alone,

but apply the same common sense and reason to raising human beings that we do to stock or fowls. There is no record that two mental defective human beings have ever produced a normal one. Education and training have no effect whatever toward changing this result.

By the ancients, the appellation "idiot" only inspired horror and disgust and meant a forfeiture of all rights and privileges in the belief that these helpless ones were accursed of the Gods; or in the effort to preserve the integrity of the race they were permitted to perish. The Spartans exposed them directly to the death peril, or they were thrown into the Eurotas. Traces of this custom found in the laws of Lycurgus were not confined to Sparta alone. Cicero intimates its existence among the Romans. It is said that the South Sea Islanders and a tribe of American Indians, distinguished for their strength, intelligence and physical beauty, still practice this custom. This effort, cruel as it may seem, is after all the following of nature's laws. The buds unfit to mature, fall; the weaklings of the flock perish.

Those who escaped these drastic measures were ridiculed, scorned and tolerated only for the sake of diversion and amusement.

In the Mediaeval times they had the freedom of the Castle of the Great. In Europe as in the Orient they wandered unmolested, viewed with superstition, reverence and fear, as being mysteriously connected with the unknown. The home into which an imbecile was born was considered especially blessed of God, it being commonly believed that they walked on earth but held their conversation in heaven. In Brazil an imbecile is considered a source of joy rather than sorrow; rich and poor alike roam, soliciting alms which are never refused. Some American Indians look upon them as children of the Great Spirit and so permit them to go unmolested.

What shall be the future program for our State's mental defectives? We believe the injustice of the double social standard and the necessity for sexual indulgence will be thoroughly condemned by our boys when they come back, and that they will look upon personal hygiene and social purity as an absolute necessity for future generations. Their experience in the world's struggle for freedom of thought and speech has lifted them to a higher standard.

We believe that the truest thankfulness and

the highest service of gratitude that can be shown to the Great Creator for the life given us is to reproduce and pass it on in a higher mental, moral and physical form, and see to it that our children and grandchildren shall not be hampered or handicapped by the sins of their fathers. Shall we wait for them to come back and take up the problem that we should have long since settled and push forward along lines that will provide means and laws looking to the segregation and sterilization of all the State's feeble-minded?

Registration of families should be required, placing a ban upon marriage and compelling them to present a clean health certificate, before marriage license is issued. We believe they will require in all the public schools that pupils be instructed, according to their several mentalities and ages, in personal hygiene and not be permitted to get the wrong idea and look upon the subject of sex as unholy, base and polluted; that the God-given object and purpose of sex shall be taught and impressed upon children in a sane and sensible way; that it is pure and holy as the God who created it and only sinful, lascivious and lustful to the loathsome, impure and mentally weak.

CAN THE ANTI-SPITTING LAW BE ENFORCED?*

By B. L. TALIAFERRO, M. D., Catawba Sanatorium, Va.

In answering this question in the affirmative, no one, I trust, will think that I have any idea that the life-time habit of many of our male population is going to be broken off by law. The tobacco-chewer and smoker are going to spit; the man with catarrh, with a cold, with bronchitis, with consumption, is going to cough and spit. It will take a generation of education to stop spitting. It would seem that the average male American who spits when and where he chooses feels like the right to spit was guaranteed him in the original Declaration of Independence, along with life, liberty, and the pursuit of happiness.

The habit is so widespread and so general that it will take time and patience to educate the younger generation up to the importance of obeying this law. The time will come, I believe, when men will stop spitting in public; when the sputum will be regarded just as the discharges of the bladder and bowel are today.

In fact, when the infectious nature of sputum is fully realized, I believe that even greater care will be taken in disposing of it.

By education of the public, I believe that the law which forbids spitting on sidewalks and on the floors of public conveyances and public buildings can be enforced, and we can in a short while cut down to a very great degree promiscuous spitting.

Why is it a good law? In the first place, it is most disgusting to think of carrying on our shoes or clothing the mucus or saliva from the mouth of either a diseased or healthy person into our homes. Children playing about on the floor with hands in and out of their little mouths to and from the floor will get germs of many diseases into their bodies.

Perfectly healthy people often harbor disease germs in their mouths and, as carriers, may distribute them in their spittle. Hundreds, yes thousands, of tuberculous people are distributing T. B. through the State by careless spitting. Is it not a good law which will, to some extent if enforced, reduce this promiscuous spitting? I believe you will all answer, yes.

How is the law to be enforced? There should be started in all of the cities and counties, an educational movement telling why the law should be enforced, and calling on all citizens to observe the law. The Medical Societies should pass resolutions endorsing the movement, and the medical profession, by example and precept, seek to have the law enforced.

The public should be warned by the local health officer that on and after a certain date the law will be strictly enforced. If he has the backing of the medical profession, and the police, it would not be very long before a deposit of thick yellow sputum on a pavement or on the floor of a public conveyance or building would be as rare as a deposit of human excrement. As it is today, if each deposit of sputum on the average city block were marked with an electric light, there would be no need for the arc light at the end of the block.

For the future, the child in the home and school should be told that it is not nice to cough or sneeze without covering the mouth and nose, and that spitting, even by healthy people, may spread disease. He should be told that if he must spit, he should expectorate into the fire or closet, or if out of doors, into the gutter at the end of a block, where it will

*Prepared for the 1918 meeting of the Medical Society of Virginia, which was postponed.

be washed into the sewer. In the country he can dig a hole with the heel of his shoe, and after spitting, cover it up.

As the years go by we shall see, at suitable intervals on the street, cuspidors in some ornamental stand that can be opened by the pressure of the foot. Into these the public may spit. Here, too, the careful consumptive may dispose of his sputum boxes. At the present time, the careful consumptive in the city, living in a flat with gas for cooking, or boarding in some private or public place, is in a predicament as to how to dispose of his sputum which he has carefully deposited in his sputum box. At the sanatorium he is instructed to fill the cup with sawdust, and after wrapping in newspaper and securely tying, to burn it, in a closed stove.

Replying to a letter on this subject, five health officers in our larger cities say that the anti-spitting law is just. One says it is entirely feasible to enforce it if the regular police were instructed to co-operate with the health department. In that city the health officer says he has never been able to get this co-operation. One admits that no definite educational work along this line is being done. The others occasionally write articles in the newspapers and touch on the subject more or less in a general way in public talks. One has been discussing the subject with several influential people and says it is more than likely that "we will soon begin to enforce" the law. In three cities sputum cups and paper napkins are furnished free, for consumptives. In two, nothing is furnished. In one the local Anti-Tuberculosis Society runs the free dispensary and furnishes supplies free. They raise the money by selling Red Cross seals at Christmas time. No special provision is made for the disposal of sputum cups and boxes from T. B. patients in any of the cities. This question was asked: "John Doe boards in a flat where gas stoves are used for cooking; he has tuberculosis and wishes to be extremely careful and conscientious, and wishes to know how to dispose of his sputum cups. What answer will you give him?" One says: "No flat evil—advise all cups to be burned or buried." One answers the question: "No." One admits it is a difficult problem; advises use of china sputum cups, disinfectant solution, and when one-third full fill with boiling water and let stand

fifteen minutes and pour into toilet. One says: "No special provisions. Suit answer to each case. Might be told to immerse cups in disinfectant solution (specifying strength, etc.), and then put in garbage can. In winter, burn in house furnace."

Would it not be a good scheme to look at this last very practical question from all angles and try to work out some feasible, practical plan, by which all persons affected with a communicable disease of throat or lungs could easily dispose of their sputum? Could not these plans, when formulated, be printed and a copy sent to each patient reported as suffering with consumption, bronchitis, diphtheria, la grippe, influenza, colds, etc., and a supply given to every doctor in the community for distribution?

The State does not furnish sputum cups or any sanitary supplies free. Just recently a very poor ex-patient, who is in the last stages of the disease, sent in a pitiful request for sputum boxes. He did not want to infect his family, but had no sputum boxes, which he had been taught at the Sanatorium to use. As there is no special appropriation for furnishing them free, they were not sent by the Health Department. In this particular case they were furnished by private individuals.

No doubt, there are hundreds of far advanced cases of T. B. who would use sputum cups or gauze or paper napkins to guard the mouth when coughing or sneezing, if they knew about such measures and could afford to buy the supplies. I believe it is up to those who know to instruct carefully these patients in these preventive measures. It is up to us to bring the question of furnishing these supplies to the attention of the authorities in order to procure appropriation for this purpose. I believe each community should be willing and anxious to do this as a matter of self-preservation.

There is no use in telling a man who has a cough and expectoration not to spit. He must spit into his own stomach by swallowing, or eject it from his mouth. We must make it easy for him to dispose of his sputum by furnishing sputum boxes and pocket cups and a convenient method of disposing of them.

If a man spits in your face you knock him down. When he sneezes or coughs at you with open face, you don't even dodge. Yet the

little bubble of mucus (droplet infection) lights on your face or in your mouth, or you inhale it, and say nothing. Careless, open face coughing and sneezing, especially indoors, are perhaps the most frequent causes of influenza and other spray-borne diseases. It is swapped in so many other ways that it is impossible to keep other peoples' spit out of our mouths if we are careless in putting thumb or fingers, or other objects, such as pencils, money, car transfer, tickets, etc., in our mouths. If spit were only blue or red, nearly everything we touched would be colored. The present epidemic is the best evidence of our gross carelessness in swapping spit.

Three hundred and eighty-six thousand and thirty (386,030) persons died in the United States alone last year from spit-borne diseases. Think of it, and think of the hundreds of thousands of sick and dead from influenza this year, all because of our careless habits; and we who know, we who are doctors (*docere*—to teach)—what are we doing about it? Are we teaching by precept and example?

The State Board has prepared an excellent Influenza Catechism. See that it is taught in the school in your neighborhood. The hope of the future lies in the child. Write the State Board of Health.

Four thousand people are dying each year in Virginia from consumption alone, because of some one's carelessness and ignorance. Won't you do your part in seeing that they secure sputum cups (cost less than a cent apiece), and paper napkins or gauze handkerchiefs, and train them to cover the mouth in coughing and sneezing and properly dispose of sputum?

In conclusion, let us do our part by covering our mouths when coughing and sneezing, and not spitting promiscuously ourselves, and by helping to educate the public; and by all means, let us use our influence in securing state and local appropriations for free supplies for indigent consumptives and instructing them in the simple means of prevention.

Make it easy and inexpensive for the man who is willing to dispose properly of his infectious sputum, and punish the man who is careless. Do your part in the registration of all cases of T. B. and other spray-borne diseases, and provide for the sending of *clear, practical* instructions to each patient as to how to dispose of sputum.

Provide a practical method of disposing of sputum cups and boxes, and other infected material in the case of people living in flats where gas or electricity is used for cooking.

After a campaign of newspaper education and after providing supplies and suitable practical means for disposal of infectious material, give notice that the law will be enforced to the letter, and enforce it.

Practical Points in Current Medicine

Public Health

The Physician vs. The Health Officer or Private vs. Public Health.

The principal function of the physician is to *cure* disease—a purely individualistic matter. For the exercise of this function he is permitted to collect a fee from the individual with whom he deals.

The principal function of the health officer is to *prevent* disease. His service is primarily for the public. His pay comes from the public treasury. Pay taken from the individual dealt with would be in prejudice to the public interest.

The result of the successful health officer's endeavors is contrary to the financial interest of the medical profession, since the reduction of disease narrows the clientele from which he draws his income.

The two professions of "Medicine" and of "The Public Health" are therefore in a real sense antagonistic.

The fact that the ethical standards of the medical profession have for so long prevented this essential difference in outlook from becoming glaringly apparent is one of the glories of the profession. The doctors have initiated health departments and have, in the main, supported them consistently.

Health officers, knowing the self-sacrificing character of the doctors' support of their work, have treated their lapses with leniency, especially their failure to report disease. While health departments were contesting for public favor and funds, this policy was perhaps justifiable, but no one, least of all a physician of standing, can now defend such a policy.

Health departments are accepted as neces-

sary governmental agencies. Their disease-preventing character is known to all. Morbidity and mortality statistics are a part of the daily news. More and more people are acquiring an ability to compare with discrimination the disease rate with the death rate. The poor morbidity returns show in this comparison represent inexcusable delinquency on the part of physicians, and health departments are on the defensive. If the health officer wishes to retain the confidence of the public, he cannot much longer refrain from wholesale prosecution of physicians, and the doctors must prepare to be held accountable for failure to report infectious disease when they suspect its presence in their practice.

ROY K. FLANNAGAN.

Locations In Virginia Where Physicians are Needed.

Appomattox Co., communicate with Mrs. Margaret Marshall, R. F. D. No. 1, Stapleton, Va.
 Albemarle Co., Earleysville, communicate with Mrs. B. W. Scribner.
 Albemarle Co., Proffit, communicate with Postmaster.
 Albemarle Co., Yancey Mills, communicate with Mrs. B. W. Apperson.
 Amherst Co., Lowesville, communicate with Dr. J. B. Woodson.
 Amherst Co., Pedlar Mills, communicate with Mr. Richard Ray.
 Amherst Co., Stapleton, communicate with Joseph Pettyjohn.
 Amherst Co., Gidsville, communicate with Dr. E. Sandidge, Amherst, Va.
 Amherst Co., Walker Ford, communicate with Mrs. J. A. Husson.
 Accomac Co., Tangier, communicate with Dr. R. Gordon Ray.
 Amelia Co., Rodolphis, communicate with Mr. E. T. Newby.
 Augusta Co., Middlebrook, communicate with J. H. Swortzell.
 Augusta Co., New Hope, communicate with J. H. Lindsay.
 Augusta Co., Parnassus, communicate with Postmaster.
 Bland Co., Phlegar, communicate with C. W. Hancock.
 Bedford Co., Coleman Falls, communicate with Mr. W. Ogden.
 Bedford Co., Stewartsville, communicate with Dr. W. O. McCabe, Thaxton, Va.
 Bedford Co., Holcomb Rock, communicate with J. H. Webb.
 Buchanan Co., Davenport, communicate with Dr. J. W. Waldron, Grundy, Va.
 Brunswick Co., Valentines, communicate with Dr. E. R. Turnbull, Lawrenceville.
 Culpeper Co., Raccoon Ford, communicate with W. D. Colvin.
 Culpeper Co., Korea, communicate with W. S. McDaniel.
 Charlotte Co., Charlotte C. H., communicate with Postmaster.

Charlotte Co., Phenix, communicate with L. H. Apperson.
 Clarke Co., Millwood, communicate with Dr. McClure Scott.
 Cumberland Co., Guinea Mills, communicate with H. T. Gray.
 Campbell Co., Gladys, communicate with Miss Mary K. Irby.
 Campbell Co., Leesville, communicate with O. L. Updike, Huddleston, Va.
 Dickenson Co., Healy Ridge, communicate with J. P. Reedy.
 Essex Co., Chance, communicate with Latane Sale.
 Essex Co., Loretto, communicate with John L. Brooks.
 Fauquier Co., Delaplane, communicate with J. C. Iden.
 Fauquier Co., Markham, communicate with Dr. F. Gochbauer.
 Fauquier Co., Paris, communicate with Dr. F. Gochbauer.
 Fauquier Co., Gold Vein, communicate with C. A. Monroe.
 Fauquier Co., Rectortown, communicate with A. A. Rawlings.
 Franklin Co., Pen Hook, communicate with Dr. G. O. Giles.
 Franklin Co., Henry, communicate with S. W. Thomas.
 Franklin Co., Sontag, communicate with Mr. M. T. Mitchell.
 Franklin Co., Taylor's Store, communicate with Mrs. G. M. Helms.
 Franklin Co., Wirtz, communicate with B. H. Layman.
 Fluvanna Co., Palmyra, communicate with L. O. Haden.
 Fluvanna Co., Fork Union, communicate with Dr. Geo. W. Parrott.
 Fluvanna Co., Kents Store, communicate with J. C. Kirkpatrick.
 Fairfax Co., Clifton Station, communicate with John T. DeBell, R. F. D. No. 1.
 Grayson Co., Comers Rock, communicate with C. W. Cornett.
 Grayson Co., Spring Valley, communicate with T. C. Funk.
 Grayson Co., Troutdale, communicate with Mrs. J. F. Greear.
 Greene Co., Standardsville, communicate with Dr. N. B. Davis.
 Giles Co., Staffordsville, communicate with E. E. Martin.
 Goochland Co., Tabscott, communicate with W. H. Bowles.
 Goochland Co., Irwin, communicate with Dr. Joseph Anderson.
 Halifax Co., Alton, communicate with F. M. Sibley, Turbeville, Va.
 Halifax Co., Crystal Hill, communicate with G. L. Palmer.
 Halifax Co., Delilah, communicate with F. M. Sibley, Turbeville, Va.
 Halifax Co., Denniston, communicate with F. M. Sibley, Turbeville, Va.
 Halifax Co., Lennig, communicate with W. A. Hunt.
 Halifax Co., Clover, communicate with Dr. R. H. Fuller.
 Hanover Co., Hylas, communicate with Postmaster.
 Henry Co., Spencer, communicate with Dr. C. W. Thomas.
 Highland Co., Doe Hill, communicate with Dr. H. H. Jones.
 Highland Co., McDowell, communicate with Dr. W. R. Siron.
 Henrico Co., Highland Springs, communicate with Mrs. Savage.

- King & Queen Co., Cologne, communicate with Postmaster.
- King & Queen Co., Gressitt, communicate with H. B. Gayle.
- King & Queen Co., Hockley, communicate with W. R. and H. C. Moore.
- King William Co., Ayletts, communicate with Dr. J. B. Moore.
- Lunenburg Co., Dundas, communicate with R. L. Hite.
- Lunenburg Co., Kenbridge, communicate with R. L. Hite.
- Lunenburg Co., Meherrin, communicate with Dr. W. S. Snead, 2500 Roanoke Ave., Newport News, Va.
- Louisa Co., Trevilians, communicate with P. C. Morris.
- Lancaster Co., Ottoman, communicate with Dr. F. W. Lewis, Sr., Morattico.
- Loudoun Co., Lucketts, communicate with Dr. H. P. Thompson.
- Lee Co., St. Charles, communicate with Dr. P. D. Pence.
- Lee Co., Jonesville, communicate with W. E. Neff.
- Madison Co., Peoria, communicate with Ernest Hudson.
- Madison Co., Twyman Mills, communicate with Dr. W. L. Early.
- Madison Co., Wolfstown, communicate with Dr. W. L. Early, or Mr. J. G. Jackson.
- Montgomery Co., Vicar Switch, communicate with Mr. H. Harmon.
- Montgomery Co., Blacksburg, communicate with Dr. H. B. Pack, 18 Holly St., So. Norfolk, Va.
- Montgomery Co., McDonalds, communicate with Dr. W. W. Rangeley, Christiansburg, Va.
- Mecklenburg Co., Palmer Springs, communicate with Dr. W. C. Harmon.
- Nottoway Co., Burkeville, communicate with Dr. H. C. Smith.
- Northumberland Co., Wicomico Church, communicate with Dr. T. W. Christopher.
- Northumberland Co., Fairfield, communicate with Dr. R. E. Booker, Lottsburg, Va.
- Nelson Co., Faber, communicate with Dr. J. R. Shacklette.
- Nelson Co., Norwood, communicate with Dr. P. Harris, Scottsville, Va.
- Nelson Co., Nash, communicate with H. R. Fitzgerald.
- Nelson Co., Midway Mills, communicate with Mrs. Emma S. Glover.
- Norfolk Co., Hickory, communicate with G. W. Eason.
- Norfolk Co., Berkeley, communicate with Mrs. Jane L. Lawford, 103 Main St.
- Orange Co., Eheart, communicate with Dr. E. D. Davis, Standardville.
- Prince William Co., Manassas, communicate with Postmaster.
- Prince William Co., Brentsville, communicate with Mrs. W. Bowman, Bristow, Va.
- Patrick Co., Peters Creek, communicate with Mr. J. R. Hall.
- Patrick Co., Stella, communicate with W. B. Via.
- Patrick Co., Critz, communicate with Dr. W. King Via.
- Patrick Co., Meadows of Dan, communicate with Dr. E. L. Branscome, Galax, Va.
- Patrick Co., Arrarat, communicate with R. M. Inscare.
- Patrick Co., Elamsville, communicate with W. C. Hooker.
- Patrick Co., Woolwine, communicate with Wm. M. Underwood.
- Patrick Co., Mayberry, communicate with M. B. Smith.
- Patrick Co., Dodson, communicate with Dr. W. C. Akers, Stuart, Va.
- Patrick Co., Nettle Ridge, communicate with Elder L. T. Tucker.
- Patrick Co., Dan River District, Brim, N. C., communicate with Rev. W. S. Epperson.
- Pittsylvania Co., Rondo, communicate with C. W. Blair, Chatham, Va.
- Pittsylvania Co., Whittles Depôt, communicate with J. R. Yeatts, R. F. D.
- Page Co., Stanley, communicate with Dr. Virgil Hammer, Luray, Va.
- Page Co., Alma, communicate with Dr. W. A. Koontz, Grove Hill, Va.
- Rappahannock Co., Amissville, communicate with L. E. Hackley.
- Rockingham Co., Dovesville, communicate with L. P. Souden, Local Reg.
- Rockingham Co., Rockingham, communicate with Dr. C. E. Conger.
- Rockbridge Co., Fairfield, communicate with J. G. Alexander.
- Rockbridge Co., Glasgow, communicate with Mrs. Brownlee Barger.
- Roanoke Co., Roanoke, R. F. D., communicate with Dr. B. Hales.
- Richmond Co., Newland, communicate with John R. Campbell.
- Russell Co., Swords Creek, communicate with W. H. Call.
- Southampton Co., Ivor, communicate with R. D. Crocker.
- Scott Co., Horton's Summit, communicate with Dr. R. F. Lyon.
- Scott Co., Hiltons, communicate with Clare V. Shelton, Postmaster.
- Shenandoah Co., New Market, communicate with Miss Martha Henkel.
- Shenandoah Co., Edinburg, communicate with Dr. R. W. Stoneburner.
- Tazewell Co., Pocahontas, communicate with Dr. John P. Haller.
- Tazewell Co., Tazewell, communicate with Dr. P. D. Johnston.
- Washington Co., Abingdon, communicate with Mr. J. D. McChesney.
- Wise Co., Blackwood, communicate with Dr. W. N. Botts.
- Wise Co., Inman, communicate with M. W. Patterson.
- Wise Co., Stonega, communicate with Dr. C. B. Bowyer.
- York Co., Poquoson, communicate with Dr. Stafford G. Cook.
- Sweet Springs, W. Va., communicate with Mrs. C. B. Woodville.
- Shinnstown, W. Va., communicate with Dr. J. T. Maloy.
- Pinetown, N. C., communicate with Wm. Cooper.

Obstetrics

Influenza Again.

Our second spread of influenza has gathered its toll of deaths among the pregnant women. Until these cases have been reported and tabulated by our Boards of Health, we cannot tell exactly how many deaths have occurred. Then we, as practitioners, have a duty to keep a record of the number of pregnant women and those a few days in the puerperium, who have

influenza alone, how many have influenza complicated by pneumonia, how many recover, how many die, how many abort, and how many die undelivered. This will be the only way we can get at the destruction of life that has been caused by this terrible pestilence. If the death of the mother occurs before delivery, of course two deaths will be caused by one case.

It seems to me that the tender care of a merciful God has more to do with the recovery, than to be treated by any especially qualified physician, any especially equipped hospital with all of its means of diagnosis, or any particular method of treatment, for we will see cases with but little care and under very unfavorable conditions, as regards being able to buy medicines and have proper attention, get well as fast as those in the houses of the well-to-do, or in hospitals especially equipped for such cases.

So much is this epidemic going to increase the mortality in obstetrical reports in the future, that I expect to see a foot-note to every paper recording cases, referring to the deaths during the influenza. Prevention must be our greatest plan at present. Do this by isolation of the pregnant woman; do not let her visit; do not let her receive visitors. I believe that shaking hands may probably be a source of infection. A person coughing, naturally puts his hand to his mouth, gets it infected, shakes hands with some one and presents him or her with the "Flu." Salute in some other way for the period of the epidemic.

Some day we will know how to prevent and how to cure, but not now. Until then, let us isolate the pregnant woman and try to save her and her unborn child.

VIRGINIUS HARRISON.

Internal Medicine

Antipneumococcus Serum In Pneumonia.

Camac* deals with cases diagnosed, clinically, bacteriologically and by post mortem, as lobar pneumonia. He points out an important difference which practitioners should keep in mind, that "broncho-pneumonia should not be considered as having anything to do with lobar pneumonia any more than tuberculous ulcer of the intestines should be considered in connection with typhoid ulcer." Streptococcus infection may be superimposed upon the pneu-

mococcus or it may occur separately. Each infection, to his mind, is differentiable in the respiratory system when acting alone, although mixed infections occur.

He believes that pneumococcus infection, no matter the type, when treated early by serum does well, while delayed treatment gives a mortality no better than symptomatic treatment.

The Method. The patient, presenting clinical signs of consolidation in the lobe of a lung, is desensitized with polyvalent antipneumococcus serum. (Mulford). To desensitize, administer 2 c.c. of serum subcutaneously; in two hour periods inject 3 c.c. and 5c.c. making a total of 10c.c. After each injection and during the desensitizing period should signs of hypersensitiveness such as dyspnea, cyanosis, violent coughing, sense of constriction in the chest, marked variation in pulse, appear, there should be no increase of dosage but the same dose should be used.

After two to four hours, the patient is ready to receive intravenously and very slowly by gravity, antipneumococcus serum, warmed to body heat; administer 100 c.c. of antipneumococcus serum intravenously; every twelve hours give an additional 100 c.c. until recovery is evident; the amount used varies from 50 c.c. to 600 c.c. with an average of 250c.c.

He concludes:

- (1) Early diagnosis is essential.
- (2) Clinical signs of consolidation should be followed by immediate use of polyvalent or other serum.
- (3) If more than 250 c.c. of serum are required and the temperature and toxic signs continue, complication by other organisms should be suspected.
- (4) Lencocytes are not a reliable guide.
- (5) Protective streptococcus vaccination should be employed.

Convalescent Human Serum In Influenza Pneumonia.

This was used in thirty-seven cases (by McQuire and Reddon) with result of one death, thirty convalescent and six doing well under treatment. They recommend its early use (within forty-eight hours after pneumonia signs appear). The method is described in *J. A. M. A.* 1918, LXXI, 1311, and the serum administered varied in amount from 75 c.c. to

*A. J. M. Sciences, Dec., 1918, page 887.

125 c.c doses with a total amount averaging about 300 c.c. They think that convalescent influenza pneumonia cases offer a serum which has a decided influence in shortening the course of the pneumonia and lowering its mortality.

Proceedings of Societies, Etc.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Reported by EMIL MAYER, M. D., New York, N. Y.

(Continued from page 173).

Report of a Case of Abscess of the Frontal Lobe of the Brain.

By ROBERT C. LYNCH, M. D., New Orleans.

Mrs. L. had been an invalid and a sufferer for considerably more than fifteen years, her condition varying only as to the degree of her suffering, which was often very great. The pain and headache from time to time confined her to bed for varying periods, and frequently the intensity was so great as to cause convulsions accompanied by a severe rigor and a bending backward, so that whiffs of chloroform were used to bring about relaxation. There were varying terms of slow recovery to a condition that enabled her to leave her bed, but she never was well, and had headaches which were almost continuous.

In 1907, following right sided abdominal pain, an ovary was removed with no improvement. In 1909, a panhysterectomy was performed: following this a period of relief ensued, but in 1912 the headaches grew so intense that a rhinologist was consulted. A right maxillary sinusitis was irrigated for nearly a year, but with only varying relief. A change was made, and the second colleague removed the right middle turbinate, opened the right frontal intranasally, and curetted the ethmoid cells. There followed a long period of treatment without relief.

Late in 1913 an acute exacerbation in the right frontal sinus occurred, demanding an external operation. There seemed to be no improvement afterward.

Three years later, after careful examination, Lynch found the right antrum to have a large opening through the inferior meatus, and irrigation of this cavity showed slight pus at times, but which bore no relation to the headaches.

The postethmoid region seemed full and

bulging, and he was able to wash nearly a teaspoonful of nonoffensive pus from the sphenoid sinus. Treatments of this character seemed to be followed by considerable relief from headaches, and relieved the chronic hawking and spitting complained of, though she had during the period of this treatment one of the chill-temperature headache attacks, which seemed to have a certain regularity as to recurrence, regardless of the treatment employed.

There ensued now a gradual decline in body strength and a slight dullness of mentality, with no desire for food and persistent headaches of increasing intensity, blood counts rising to 17,000 with 90 polymorphonuclears. Blood pressure, 110—rather low; no focal symptoms of any kind, as determined by a most searching examination.

The decline reached the state of involuntary micturition and defecation, mental dullness to almost coma, and inability to suck fluids through a straw, to be roused only on the greatest excitement, and speech then inaudible—still no focal symptoms.

On her return to the hospital, some months later, Lynch determined that the symptoms were those of brain abscess in the silent area—the frontal lobe; accordingly he opened up the old frontal sinus wound, which was apparently perfectly healthy and sound, but to his surprise there existed a small cavity holding about fifteen drops of milky pus, looking much like an old mucocoele. On removing the membrane from the posterior wall the bone looked normal and was intact completely. He could not feel satisfied, however, that the findings were sufficient explanation for the symptoms, and took down the posterior sinus wall. The meninges seemed normal and not adherent in any direction, and there was no bulging or undue pressure apparent. He split the dura, and the brain surface seemed normal; so he explored with aspirating syringe and large needle, applying suction as soon as the needle was below the surface. After about an inch deep, following the line of the base of the skull and away from the longitudinal sinus and under the anterior horn of the ventricle, there gushed into the syringe about three drams of yellow green pus. He withdrew the needle and prepared the bone opening and area for the reception of one of Mosher's wire gauze drains: reintroduced the needle and withdrew four

drams of pus. Then he opened with a scalpel what he thought was an abscess cavity, but try as he might with needle, knife or forceps, he could find no evidence of the abscess. Finally he passed a small rubber tissue drain into the brain, in the direction and to the depth of which he had aspirated pus and dressed the wound. Upon recovery from the anesthetic the patient was conscious, and in six hours addressed him voluntarily, complaining of some soreness about the wound, but not of much headache.

The pus showed staphylococcus aureus in pure culture, but not active, growing feebly on culture.

DISCUSSION.

Dr. Thomas H. Halsted, Syracuse: In this connection I shall report the present condition of a case of hypophyseal cyst which was operated two years ago and reported to this society in 1915. It is the case of a little girl, eight years of age, who at that time had as the leading symptoms great increase in the size of her head, great increase in weight, weakness, constant shaking of head with incoordination of movements, so that she was unable to feed herself; optic neuritis, sharp headaches, very striking change in color and texture of hair, polyuria, and disturbed mental acuity. The operation was done through the nose under local anesthesia; it was the modified Hirsch operation, and the growth proved to be a cyst of the hypophysis. The patient was much improved temporarily. Some months later the cyst recurred and a second operation was refused by the parents. It is now about three years since the original operation. I have not seen the child in a year, but saw the father within the past six months. He said that the child now has simply an aggravation of all the symptoms; she has become very fat and large with great weakness, and the blindness is nearly total.

Dr. Henry L. Swain, New Haven: I would like to ask Dr. Lynch what was the condition of the brain of this patient.

I had a case which I saw but once, in which there was bitemporal hemianopsia which was due to a tumor of the pineal gland, in which there were headaches somewhat similar to the second case.

Dr. Robert C. Lynch, New Orleans (closing the discussion): In reply to the question by Dr. Swain, as to what was the condition of the

brain of this patient, I would say that the brain did not show anything pathologic at all, except that the coverings represented the usual findings of death from meningitis.

We scraped up in New Orleans three other cases of pituitary tumor, and all of them showed on X-ray a very marked enlargement and beginning protrusion backward of the sella turcica. They all showed the same phenomena as regards the eyebrows, and they all showed the symptoms of lack of function of the pituitary gland.

Report of Cases of Bilateral Abductor Paralysis of the Vocal Cords.

By Ralph Butler, M. D., Philadelphia.

The first case was eleven years old, and had congenital syphilitic cerebrospinal meningitis, causing ptosis of the right eyelid and internal strabismus. The biceps, triceps and knee jerks were absent. The pupils were irresponsive to light and accommodation. The laryngeal symptoms, dyspnea and stridor began when he was six years old, but disappeared after three doses of salvarsan, to recur three years later. The second case was a man sixty-two years old with a neoplasm in the upper part of the chest and neck, including the thyroid gland, and causing almost complete occlusion of the trachea. He had been under observation for five months, and improved under mercurial inunctions. The third case was a fatal one following the removal of the thyroid gland.

The cases illustrate the greater danger from a sudden paralysis. The first two cases have been able to go about for many months with relatively little discomfort from obstructions which were little, if any, less than that which was fatal to the third, in which the paralysis was very rapid in its appearance.

Bert believes the greater mortality from sudden obstruction is due to reflex paralysis of the respiratory centers through irritation of the laryngeal nerves, and Krieger maintains that it is due to irritation of the cardiac branches of the vagus.

DISCUSSION.

Dr. Walter F. Chappell, New York City: I would like to call attention to the case of a patient, a man forty-five years old. His present illness began one month before admission, when he became hoarse. This continued and was followed by dyspnea, at first on exertion, later continuous. His only complaints were hoarseness and dyspnea. When he entered the

hospital a tracheotomy was done at once, as the vocal cords were immobile and almost in contact. The Wassermann and X-ray of chest were both negative. Salvarsan was given twice and had no effect. Two weeks after admission, under suspension, the left vocal cord was removed with scalpel and punch. Three weeks later, as there was not space enough between the cords, the left recurrent laryngeal nerve was cut at the entrance into the larynx. In ten days the tracheotomy tube could be removed. When seen two months after the last operation, he was at work and breathing easily. Cutting the nerve not only allowed the vocal cord to recede into the cadaveric position, but caused an atrophy of that side of the larynx which gave still further space. The man was to report if he had any difficulty, and has not as yet, so it is presumed he is well. Several physical examinations and nerve reflexes were negative.

Dr. Greenfield Sluder, St. Louis: I would like to add the record of a case seen in consultation. A physician, twenty-eight years of age, who developed acute laryngitis, apparently a grippe, and with it a very violent dyspnea which, upon inspection, showed bilateral posticus paralysis. The cords were almost in the median line. The glottis was represented by a slit through which you could have dropped an old-time silver five cent piece. The recovery was not exactly uneventful. It required some six weeks, during which time he became excited about something and smothered almost to death. Nine or ten months later he developed another infection, laryngitis developed, and again posticus paralysis, and through the three attacks I saw him in consultation.

Dr. Bryson Delavan, New York City: Several year ago I was called in to see a case at St. Luke's Hospital suffering with dyspnea, and I found a marked abductor paralysis. I was obliged to do an immediate tracheotomy. The obstruction, however, was not entirely due to the laryngeal box. At a certain distance below the larynx, in the trachea, we also found constriction, and endeavored to overcome it by insertion of a long tracheotomy tube. The child died of exhaustion, and was found to have a large tubercular lymph node pressing upon the trachea, which was evidently the cause.

Dr. W. B. Chamberlain, Cleveland: I have in mind such cases as occur in the early stage of locomotor ataxia. My attention was at-

tracted to this a number of years ago by a patient who was found unconscious in the street and taken to the police station on the suspicion of being drunk. After the usual delay it was discovered that he was not drunk but ill. On examination we found complete abductor paralysis and other signs of locomotor ataxia. I then went over to the City Hospital and made a routine examination of all tabetics we had there, and was surprised at the number of cases in which we received no history of this condition, where we found paralysis.

Some few days ago I had a patient, a man about thirty-five years old, an Italian, who came with a history of dyspnea and difficult respiration, especially on exertion. I thought, of course, of the possibility of a foreign body, but examination showed bilateral abductor paralysis. I wished to refer the man to the hospital, but he disappeared. Some four weeks later the consultant told me that he found the man in an acute attack of dyspnea from which he succumbed in a short time.

Discussion on Report of Council of National Defense.

Dr. Charles W. Richardson, Washington: We, as citizens of the United States, have benefited to an unusual extent from our citizenship in this country, more so than citizenship in any other country as individuals. We have profited by this; our success has been great, our comforts have been manifold, and it is no more than right that we should assume the duties and obligations of citizenship, and offer our services fully to our country, and encourage all those with whom we come in contact with this spirit of enthusiasm. We must stand, gentlemen, for our country, for democracy, and for the suspension of this horrible war, as soon as we can; and by giving aid and comfort and doing our utmost by enlisting ourselves and causing others to enlist, we can bring this about.

Dr. Harris F. Mosher, Boston: What the government asks of us today is a wholesale coming into their ranks without any reservation whatever. They say they can make no promises. On the side they intimate that perhaps, probably even, the special man will be used for special work, but no promises are given, so that you have to make up your minds whether you will go on with the feeling of a slacker and wait until you are asked to do special work, or go in today and run your

chances of being put to work with which you are unfamiliar. The only way out of that is to stay in this uncomfortable position until some action is taken toward the forming of a special base hospital. When you read the report, if you do, you will find that was recommended. If you talk with the men from Washington you will find they feel that will come. Major Lister said that will probably come, if Pershing carries over the amount of men he is supposed to carry over, within the next six months. Until that time I am unhappy, and I feel very many of you are unhappy. I do not know what to do. It is a much easier thing to go in and a much harder thing to stand out. I for one am going to stand out until the time comes to go in and do the work I think I am more able to do.

Dr. Robert C. Myles, New York City: I have had some very peculiar experiences lately at the New York Polyclinic, where we have three hundred specialists, and a lot of them have joined this corps, and I wish you could see some of the work they are doing. It is so far removed from their specialty that they know nothing about it. It is simply ridiculous. I do not know what I could do if I was sent down to the Mexican border to treat dysentery. According to what we hear, that will all be corrected later. There ought to be some action or activity, some committee formed or appointed with a medical officer to plan some law to relieve the situation. The eye and ear are two of the most important organs in war.

Dr. Joseph H. Bryan, Washington: This is a very important matter for us as citizens and as specialists, but we must remember that we are at a very grave crisis, and every man, young and old, every woman and every child, has got to come forward and do something. This is no child's play. This war, according to the best thinkers and the best observers, is not going to be over this fall, this winter, or even next, and every resource of this country has got to be utilized. I have gone into the Officers' Reserve Corps, having served some years ago in another branch of the service. Of course, it is a very hard thing to do, to go in and abandon the care and responsibility I have, but nevertheless I feel that having served once it is my duty to go there again. I have gone in voluntarily and am willing to accept any position. I have accepted a subordinate rank; I can serve as Captain just as well as Major, and am perfectly willing to do that, but we

are all in bounden duty to do something to help out in this crisis. On the other hand, I think if the matter is brought very forcibly to the attention of the Surgeon General of the United States Army by these various societies, representing that men of experience, men who have developed these specialties of the eye, ear, nose and throat, are best fitted to work in the base hospitals or some hospital devoted to the treatment of diseases resulting from injuries, and that they can best serve their government if their services are utilized along these lines, I am sure the Surgeon General will treat you courteously and possibly do something along those lines. Of course, you must remember that the war department has been working on a basis of a hundred thousand men, and has to work now on a basis of over two million men, and has not got the system or force to combat these difficulties. They are swamped with work at present. But if we will take the stand and assert that our services are best utilized along the lines on which we have been working, I believe some impression will be made upon them. In the meantime we can all go in and serve our country, to the best of our ability.

Dr. Burt R. Shurly, Detroit: It will undoubtedly be necessary to establish a number of base hospitals of the eye, ear, nose and throat. We have one by way of example in the British army now located at Folkestone, which has done very wonderful service for the British army. If we could have a base hospital on the foreign service, and one in this country, or more as will be necessary, and organize the eye, ear, nose and throat hospitals of the various large cities as they are already organized, and have a definite method of referring all cases from these five hundred bed base hospitals or the general hospitals to the special hospitals, we would undoubtedly be able to organize and establish a splendid service for the army of the United States at home and abroad.

It seems to me that this wonderful scientific usefulness simply requires organization and authority. Without the authority of the Surgeon General's office we can do nothing whatever, because there must be a definite plan of work, and the organization must be a definite one, and follow along a very definite plan, which has been worked out with very great detail by the Surgeon General's office.

Undoubtedly, the organization and equip-

ment of an eye, ear, nose and throat hospital would require special organization and equipment. These are things which have never been done before in this country. Therefore, it does seem to me the time has come when a committee from these various societies should organize and send out at least two base hospitals. There would be forty-eight highly trained efficient specialists to care for certain cases sent from the various base hospitals which the ordinary eye, ear, nose and throat man on the staff of this hospital would not be able to properly care for.

Dr. Joseph H. Bryan, Washington: I would like to emphasize one fact. In case this committee is appointed, and I hope it will be, the matter can be brought directly to the attention of the Surgeon General, and the fact emphasized that the men who are highly trained in the various specialties will be wasted if they are sent on the ordinary staffs, and the point made that now there is actually a very great waste of good material to be sent on duty of that kind when the younger men can be utilized for that purpose, and that we as highly trained specialists should be called upon to do the work as outlined by Dr. Shurly.

Dr. Charles F. Richardson, Washington: If we appoint this committee, which I hope will be done, I am sure the Surgeon General and assistants, both of the army and navy, will listen to that committee and will do all that committee wishes—that is, within reason.

Every man knows what his duty is to himself, to his family, and to his country, but there is one fact that stands paramount. The example of the class of men that represents this society to the younger medical men throughout the country is a great one, and should not be lost sight of. If you can go about among the younger medical men and say, "I am already in the service," that young man is going to think, and he is more apt to offer himself to the service of his country if he knows that we have already offered ourselves freely to our government, to be used as the government sees fit. And I hope that the men of this society will offer themselves freely for the service of their country to be used as the army authorities may see best and fit to make use of them.

Dr. D. Bryson Delavan, New York City: I represent that type which does not know just what to do. I do not know what my place is. For a year and a half I struggled to establish

a hospital in Paris for the repair of injuries of the head and face. At the end of the first year sixty thousand men were needing repair in that department alone, simply from France and Belgium. I am chairman of the Executive Committee of the American Red Cross Hospital in Paris, managed by Dr. Blake. The nearest member of my family last week got an ambulance unit that is on its way to the front, and each week a certain number of us go to the Naval Recruiting Station and examine ears and throats. In other words, not knowing what to do, like all the rest, we are willing to take the first thing that comes to hand and do the best we can. Dr. Shurly has touched the keynote when he said that organization is needed.

Dr. Max A. Goldstein, St. Louis: Without much circumlocution I would suggest that there be a propaganda of education to put us all in a position to study the question as carefully as we know how. This might be developed by the committee already urged. Personally, at the present time, I should like to place at your service for this organization and its committee, the *Laryngoscope* and its editor, for any publicity work you require whenever and as often as you require it, and to place at your disposal furthermore the mailing list of the office of the *Laryngoscope*, which includes the names of three thousand men of this country.

(To be continued.)

Book Announcements and Reviews

The Monthly will be glad to receive new publications for acknowledgment in these columns, though it recognizes no obligation to review them all. As space permits we will aim to review those publications which would seem to require more than passing notice.

The Practice of Pediatrics. By CHARLES GILMORE KERLEY, M. D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital. Second edition, revised and reset. Octavo of 913 pages, 136 illustrations. Philadelphia and London: W. B. Saunders Company. Cloth, \$7 net.

The progress made in Pediatrics since the previous edition, in 1914, has necessitated many changes in this volume.

Among the more important of the new and rewritten subjects are septic sore throat, heliotherapy in tuberculosis, dyspituitarism, blood findings in poliomyelitis, Flexner's serum in cerebrospinal meningitis, treatment of eczema with euresol, psoriasis, vaccines in pertussis, Shick's test in diphtheria, antityphoid vaccine,

neosalvarsan and mercury bichloride in congenital syphilis, acute acidosis, acetonuria, pellagra, myotonia congenita (Oppenheim's disease), ptosis and dilatation of the stomach in older children, duodenal ulcer, digestive disturbances due to mechanical agencies, rumination, Vincent's angina, hay fever and vaccine in its treatment, hemophilia, glandular fever, status lymphaticus, precocious menstruation and maturity, spasmophilia, stammering, congenital stridor, meningismus, X-ray treatment of ringworm of scalp, beriberi, blood transfusion, intramuscular injections, and hypodermoclysis.

After a careful study of this book, one is convinced "it is based on one good man's experience, and not made with scissors." Surely no one has had a broader experience than Dr. Kerley. The great number of concise case histories add interest and value to the work. We commend it as one of the most practical books on Pediatrics of the present day.

H.

Surgical Treatment. A Practical Treatise on the Therapy of Surgical Diseases for the use of Practitioners and Students of Surgery. By JAMES PETER WARBASSE, M. D., formerly Attending Surgeon to the Methodist Episcopal Hospital, Brooklyn, New York. In three large octavo volumes, and separate desk index volume. Volume II contains 829 pages, with 761 illustrations. Philadelphia and London: W. B. Saunders Company. 1918. Per set (three volumes and the index volume): Cloth, \$30 per set.

The second volume of Warbasse's Surgical Treatment has just been issued and measures up fully with what was expected of it. It deals with regional surgery, is comprehensively indexed and is fully illustrated. It is one of the most important treatises on surgery of the present day.

The Medical Clinics of North America. U. S. Army Number. Volume 2, Number 2. September, 1918. Published Bi-Monthly by W. B. Saunders Company. Philadelphia and London. 333 pages. Paper cover. Price, \$10 per year (6 numbers).

This number of the Medical Clinics is unique in that every article is by a medical officer who has been actively enlisted in the great world war. The initial paper is by Maj. Gen. William C. Gorgas, late Surgeon General of the U. S. Army.

The subjects treated are among those medical and surgical conditions which occurred most commonly at many of the camps, some of them having been in epidemic form.

Johnson's Standard First Aid Manual. Suggestions for Prompt Aid to the Injured in Accidents and Emergencies. Edited by Fred. B. Kilmer. Lecturer in First Aid; Member of St. John's Ambulance Association, International Congress of First Aid and Life Saving, etc. In collaboration with eminent surgeons, first aid authorities and specialists. 8th edition, revised. Published by Johnson & Johnson, New Brunswick, N. J. 143 pages. Sold by the trade, or sent postpaid on receipt of price: Cloth bound, decorated in gilt, 50 cents; paper cover, 25 cents.

This manual strikes us as one of the most complete on first aid measures which has come to our desk. It is well indexed and profusely illustrated in such a manner as to be exceedingly helpful in rendering first aid measures until the arrival of a physician or surgeon. It combines conciseness and simplicity in such a way that a high school scholar could apply its methods, and at the same time it furnishes many suggestions which should be helpful to the busy practitioner,—some of them old facts which may have been overlooked. If only for the purpose to freshen one's memory on these points, it is well worth the moderate price named.

Editorial.

Program For The Control Of Venereal Diseases To Continue.

The War and Navy Departments and Bureau of the Public Health Service are making urgent appeals to state and local boards of health to continue the fight against venereal diseases with increased vigor, and point out that the danger from this source is increased rather than diminished by the cessation of hostilities. It is as important for the civilization of the world that producers on farms, in factories and mines, and the multitude of other vocations, avocations and professions of modern life, and the innocent women who fall victims to the ignorance or worse, of the men to whom they confide their all, and their unborn or new-born babes, be protected against this fearful scourge as it is that the men in the uniform of the army and navy be kept 100% effective. It has been very reasonably suggested that the relaxation of discipline and lowering of morale which have inevitably followed the signing of the armistice; the unusual number of women and girls employed in occupations which take them away from the restraint of home; and the

generally unsettled condition and jubilation attending the demobilization of troops "over here", and the home-coming and mustering out of our heroes "over there," all naturally have a tendency to increase the practices which disseminate and perpetuate the venereal diseases.

The tremendous importance of the control of these diseases in the civilian population was so manifest last summer that Congress appropriated not only substantial sums for the use of the Public Health Service, and the creation of an Interdepartmental Social Hygiene Board, composed of the Surgeon Generals of the Army, the Navy and the Public Health Service, for their control, but also a million dollars for each of the next two years to be used by the state boards of health, under the supervision and general direction of the Interdepartmental Social Hygiene Board, for the development of adequate programs for this purpose.

The reporting of venereal diseases is considered so important by the Interdepartmental Social Hygiene Board that none of this appropriation will be available to any State in which there is not a law or a regulation of the State Board of Health requiring it and it is recommended that a considerable part of the State fund be used, if necessary, in enforcing this law. Accordingly it is made the duty of the Director of the Division of Venereal Diseases in the State of Virginia to prosecute in any case of failure to report a case of syphilis, gonorrhea, or chancroid which may in any way come to his knowledge; and, furthermore, he is instructed to employ the assistance of experts to make investigations and secure evidence for conviction when possible, wherever there is reason to suspect that any physician is not reporting cases for which he prescribes as required by the regulations of the State Board of Health which became effective the first day of June 1918.

The regulation which requires druggists to report the sale of remedies for venereal diseases, or believed to be intended for use in the treatment of venereal disease, was also suggested from Washington, and here, again, the director was advised to employ aid to secure evidence and prosecute wherever there is reason to suspect that the law is being ignored or violated.

The funds for enforcing these laws have only

recently become available and both physicians and druggists, as well as all national, state and local health officers, have been laboring under such abnormal conditions on account of the epidemic of influenza that no systematic effort has yet been made to inaugurate the complete program for the control of venereal diseases; but fully developed plans for such a program are now almost ready for execution and will not be much longer delayed.

Physicians and druggists are being circularized by the United States Public Health Service urging them to co-operate in every possible way in the first organized fight against venereal diseases that has ever been attempted in this country, and, since such co-operation will involve a certain amount of unselfish labor for the good of humanity, the medical profession will not be true to its traditions if the great majority of its members do not cheerfully respond to this appeal; but it has been suggested that for the benefit of those who will not act from humanitarian motives, or even because the law of the commonwealth requires it, due notice be served that, wherever sufficient evidence can be secured, warrants will be sworn out against any physician who fails to make a report of a case of, or any druggist who fails to report the sale of a remedy for, venereal disease.

W. A. BRUMFIELD, *Director,*

Division of Venereal Diseases in Virginia.

Prophylactic Inoculations Against Influenza.

The need for prophylactic inoculation of a serum or vaccine against influenza and its deadly complication, pneumonitis, is the most urgent of the hour. If the current reports are true six million people in the world have died of influenza since the epidemic began. Three hundred and fifty thousand people in the United States of America have died of it within the past four months. Certainly no scourge nor plague has equaled it in mortality in the same period of time while probably no disease has ever before in the history of the world shown the world-wide and countless frequency of incidence. The professional and scientific world stands all but overwhelmed by it and apparently powerless to forestall a repetition of it within the present winter season or in succeeding years.

The public health officials as well as private

practitioners, no doubt, feel the need of some measure or agent which may be used at least in the presence of cases of influenza (or in epidemics) to protect exposed persons from "taking" the influenza. It is not so easy a matter to undertake inoculation of the population in general, even granted that such a serum or vaccine be found. But were it known that there is obtainable a safe prophylactic vaccine or serum, no greater boon could befall the people than to be able to resort to it when exposed to influenza or even when precaution seems to demand its use. So every probable vaccine or serum, guaranteeing no deleterious or harmful effects when used, based upon fairly sound reason and scientific procedure, which may be offered by scientific workers, should receive hearty reception and a just and fair trial.

William Harvey said truly, in his Dedication, in his famous monograph on the circulation of the blood, "all we know is still infinitely less than still remains unknown." Certainly in the face of appearance of a disease, which has swept over the world in a few months leaving millions of its population dead in its wake, Science and scientific men must feel the weakness and insufficiency of scientific knowledge and power.

No note of disapproval should be sounded which would halt or retard the investigation and research for some specific serum or vaccine. In fact, every real investigator should be welcomed with his vaccine or his serum, if produced along recognized scientific lines. Was not Jenner's first experiment in vaccination, by inoculating a boy of eight years with cowpox, and, after his recovery, with smallpox, without his showing any symptoms of smallpox, received by the medical profession with disapproval and was it not so with the beginning of many the great advances in medicine? Was not the typhoid vaccination, which, evidently, has done so much to wipe out the incidence of this disease in military camps, all too slow in reaching general adoption by the profession?

In a preliminary note Rosenow (*J. A. M. A.*, Jan. 4, 1919), submits to the profession a report upon the use of a vaccine which has in view the immunizing of persons against influenza and pneumonia.

Rosenow reports, in the preparation of his

vaccine, that the following formula is used:

Pneumococci, Type I, (10 per cent.)	
Type II, (14 per cent.) and Type III	
(6 per cent.)	30%
Pneumonococci group IV and allied	
green producing diplostreptococci...	30%
Hemolytic Streptococcus	20%
Staphylococcus Aureus	10%
Influenza Bacillus	10%

The initial dose for adults is 0.5 c.c. subcutaneously: the second dose in seven days 1 c.c., and the third in fourteen days after the first dose 1.5 c.c.

Rosenow remarks that this vaccine, through prophylactic inoculation, appears to afford a definite degree of protection to persons against the more serious respiratory infections. The duration of the immunity, he says, is not known but indications are that it is relatively short.

ALEX G. BROWN JR.

Comments On Influenza And Complications.

Leukopenia. One of the most interesting clinical facts observed in these pneumonia cases is the low white count. In many cases with high temperature, with signs of advanced pneumonia, the blood count shows a leucocyte count of from 3000 to 5000. It was felt, in the beginning of the epidemic, that such a low count indicated a marked streptococcus infection in addition to pneumococcus infection. This, along with the observation that streptococci were found in fair proportion at post mortem, led to the idea that the antistreptococcus serum was indicated as a treatment. It has been a long accepted fact among clinicians that a low white blood count in frank lobar pneumonia was a bad indication in the matter of prognosis.

Temperature. The fever in influenza, when pneumonia complicates it, is usually very high, in many cases 105° F., while the pulse rate and often the respiratory rate, as related to the high temperature, are low. The pneumonia of influenza rarely terminates the fever course by a crisis. Unlike lobar pneumonia, a self-limited disease, terminating by crisis on the fifth or seventh day, influenzal pneumonia is characterized by prolonged fever with an uncertain course.

Cyanosis and Hemorrhage. Marked cyanosis is observed early in the respiratory infec-

tion of influenza, too soon, often times, to justify the thought that large areas of lung tissue, mechanically blocked by inflammatory material in vesicles, is producing cardiac dilatation and resulting cyanosis. Probably, there is a toxemia which affects not only the tonus of the heart muscle but destroys by hemolytic action the oxygen-carrying power of the blood. Many cases show this cyanosis in the lips, ears and fingers with few gross physical signs in the chest, if any considerable amount of consolidation occurs.

Many influenza cases show a marked tendency to bleed. Nose bleed is not an infrequent early sign while later, in pneumonia, large amounts of sanguineous fluid are coughed up from the windpipe and bronchi. Menstruation frequently unexpectedly appears.

Heart. The heart of "flu" patients presents an interesting study. Few pronounced cases of influenza, running any prolonged course, fail to affect the heart. A careful examination of these cases during the course of the malady, although previous cardiac defects were known not to exist, shows heart murmurs as well as disturbances of muscular function. Usually there is a systolic murmur along the base, with soft myocardial sounds, and diffusion of cardiac impact indicating functional weakness. Not a few of these previously sound hearts show, during the course of the disease, disturbance of conduction, contractibility, rhythmicity, and irritability. Only a few times, and then only when known septic tonsils were noted, have signs of endocarditis been observed. No doubt it exists, but the writer's cases have not brought this to his attention except in a few cases. Convalescence is often made serious and stormy by cardiac weakness and dilatation.

ALEX. G. BROWN, JR.

News Of M. C. Officers.

Capt. Henry A. Wiseman, Danville, Va., has been officially cited for gallantry in action. After his mount had been slain by a shell fragment, Capt. Wiseman crawled to the side of a wounded officer and there administered first aid, notwithstanding the danger of death from machine gun bullets. He is a field surgeon at the front.

Lt. John W. Robertson visited his family at Onancock, Va., the first of this month, en

route to Lakewood, N. J., where he was assigned to the general hospital.

Capt. Charles M. Edwards, Richmond, who was transferred from duty at the Infirmary, Camp Greenleaf, Ga., to service in the Base Hospital, at Camp Lee, has again been ordered to Walter Reed General Hospital, Washington, D. C.

Dr. M. Grove-Hagen has returned to his home in this city, after service in the army, and resumed his practice.

Dr. John W. Carroll, Lynchburg, who went to France last summer, with the University of Virginia Base Hospital, No. 41, has been promoted to a majority.

Dr. Joseph Bear, who has been serving in the army, has been released from service, and spent a few days at his old home in this city, before leaving for the North to take up a special course of study.

Major Richard P. Bell, Staunton, who has been chief surgeon of Base Hospital No. 53, with the American Army in France, expects to return shortly.

Major Beverley Randolph Kennon, Norfolk, has been chief of the eye service of the same hospital.

Major William Wallace Gill has returned to this city, from service in the army, and has offices in the Professional Building.

Dr. Bernard H. Kyle, Lynchburg, has been promoted to the rank of major and has been decorated with American and French crosses, four times since being in France.

It has been announced that Lt. Col. Stuart McGuire, of this city, who is in charge of Base Hospital No. 45 in France, with five other members of his unit, has been ordered to hold himself in readiness to sail for America. This hospital is generally regarded as the best equipped base hospital in France.

Dr. T. E. Armstrong, of the U. S. N. Medical Corps, who has recently returned from France, visited his old home, South Boston Va., early this month.

Major Lomax Gwathmey, Norfolk, who was officially reported as having been wounded while on duty as an army surgeon in France, is reported to have arrived in New York and to be under treatment.

Dr. H. Aulick Burke, assistant surgeon, U. S. Navy, has recently been on a visit to his family in Petersburg.

Major J. N. Barney spent the holidays with his family in Fredericksburg. Having completed the work to which he was detailed in Washington, D. C., he has been ordered back to the Air Service Hospital at Garden City, Long Island, N. Y., at which place he has been stationed for the past year.

The Seaboard Medical Association Of Virginia And North Carolina

Held its annual meeting at Kinston, North Carolina, on December 4th, 1918. Owing to the epidemic of influenza in and around Kinston, the meeting was shortened to a one day's session, morning, afternoon and evening meeting being held at the Hunter Building.

The following officers were elected: President, Dr. W. L. Harris, Norfolk, Va.; vice-presidents, Drs. C. B. McNairy, Kinston, N. C., A. M. Burfoot, Fentress, Va., Paul H. Mitchell, Ahoskie, N. C., J. Gates Goode, Cheriton, Va.; Treasurer, Dr. Geo. A. Caton, New Bern, N. C.; and secretary, Dr. Clarence Porter Jones, Newport News, Va.

The next meeting is to be held in Norfolk, Va., in December, 1919.

The Richmond Academy Of Medicine And Surgery,

At its annual meeting in December, elected the following officers for 1919: President, Dr. Virginius Harrison; Vice-presidents, Drs. Beverley R. Tucker, J. Fulmer Bright and W. H. Higgins; secretary, Dr. M. W. Peyser; assistant secretary, Dr. E. H. Terrell; treasurer, Dr. Howard Urbach. All three of the last named officers were re-elected. With this year, Dr. Peyser begins his twenty-sixth consecutive term in office, which fact demonstrates the great efficiency of his work. Dr. G. Paul LaRoque was elected librarian and the following as members of the judiciary committee: Drs. H. H. Levy, A. L. Gray, McGuire Newton, Clifton M. Miller and J. N. Upshur.

Dr. Robert Glasgow,

Lexington, Va., has been elected president of the Virginia State Board of Medical Examiners to succeed Dr. R. S. Martin, deceased.

Dr. J. A. Guthrie,

Huntington, W. Va., was elected president of the West Virginia Hospital Association. at its annual meeting held the last of December.

New Member Of National Board Of Medical Examiners.

Dr. William H. Welch, Baltimore, was elected a member of this Board at its recent meeting, to succeed Dr. Henry Sewall, of Denver, resigned.

The Medical Society Of The District Of Columbia.

At its annual meeting last month, elected the following officers for the year: President, Dr. William Gerry Morgan; Vice-presidents, Drs. Ada R. Thomas and A. R. Shands; recording secretary, Dr. H. C. Macatee; corresponding secretary, Dr. J. Russell Verbrycke; treasurer, Dr. C. W. Franzoni, and new members of the executive council, Drs. A. W. Boswell, Philip S. Roy and Charles S. White.

Oregon Soldiers Have Honor Record.

According to the records of the Surgeon General's Office, only one-half of one per cent of all Oregon's enlisted and drafted men have been found suffering from venereal disease, which is the best record made by any of the States in this respect.

Dr. V. T. Churchman,

Charleston, W. Va., has been appointed president of the West Virginia State Health Council, vice, Dr. Floyd Farnsworth, Frenchton, resigned to accept the directorship of the Bureau of Venereal Diseases in that State.

The Southern Surgical Association

Held a three days' meeting in Baltimore, beginning December 17. It was stated that about 60 per cent of the membership of this Association are or have been serving in the army. Dr. J. Whitridge Williams, dean of the Johns Hopkins University Medical School, delivered an address of welcome. War-time surgery was one of the principal-subjects discussed at this convention. New Orleans was selected as the place of its next meeting.

Officers were elected as follows: President, Dr. Jas. E. Thompson, Galveston, Tex; vice-presidents, Drs. Charles R. Robins, Richmond, and George A. Hendon, Louisville, Ky.; secretary, Dr. Hubert A. Royster, Raleigh, N. C., and treasurer, Dr. Guy A. Hunner, Baltimore, both of the latter being re-elected.

Change In Richmond's Health Department.

Dr. Ernest C. Levy, former chief health officer of this city, has been appointed director of public welfare of Richmond, the new office created in the city's changed form of government. After leaving Richmond, he was engaged in public health work in New York City until about a year ago when he entered the army in which he has been serving as an epidemiologist with the rank of major.

Dr. Roy K. Flannagan, who succeeded Dr. Levy when he left Richmond, has resigned as chief health officer of this city, to accept a position offered him several weeks ago, as director of the work of the International Health Board in Virginia. In this position, he will be connected with the State Board of Health, and will maintain his offices here. Just prior to leaving the Health Department to enter upon his new duties, Dr. Flannagan's co-workers presented him with several handsome gifts as a testimonial of their esteem.

Dr. Charles E. Conrad

Was elected to succeed himself as chairman of the Red Cross chapter at Harrisonburg, Va., at a meeting held there early this month.

Dr. W. R. Cushing.

Dublin, Va., has been elected a member of the Board of Directors of the Bank of Dublin for the present year.

Dr. W. Boyd,

Winchester, Va., has been re-appointed by Governor Davis to fill out his own unexpired term, ending April 1, 1922, as representative of the Seventh Congressional District on the Virginia Board of Medical Examiners. The vacancy was occasioned by Dr. Boyd's resignation to enter military service.

Married—

Lt. Raymond Harrison Brockwell, M. C., and Miss Italea Dare Peters, both of this city, January 4.

Additional Hospital Work Authorized By War Department.

At Walter Reed General Hospital, Washington; alterations and additions to the re-

ceiving ward and the construction of a building for automobile repairs and farm mechanics necessary for physical reconstruction exercises.

At Debarkation Hospital No. 51, at Hampton Roads, Va.; Nurses' quarters, barracks for enlisted men as well as mess barracks for them; diet kitchens, alterations to existing barracks and sheds, a new wharf, and a hospital train track and shed. The estimated cost at this point is \$195,000.

Dr. Herbert L. Kneisley

And family, of Hagerstown, Md., visited relatives in Woodstock, Va., last month.

New State Tuberculosis Sanatorium.

The property formerly known as Moores Brook Sanatorium, near Charlottesville, Va., has been purchased as another home for the treatment of tuberculous Virginians, to supplement the work being done at Catawba Sanatorium. The City of Charlottesville put up \$15,000 and the State \$17,000 in the purchase of the property. A further sum of \$30,000 will be spent by the State in equipping the place for complete service as a sanatorium. It is regarded as a location of unusual beauty and contains 130 acres. It has spacious lawns and porches around the house, and it is thought that it will be ready to accommodate about seventy-five patients in the next few months. "Ragged Mountain Sanatorium" has been suggested as the name for the place, from the mountains of that name surrounding the place.

Dr. Frank P. Dickinson,

Fredericksburg, Va., has been appointed by the Judge of the Circuit Court of Spotsylvania County, Virginia, one of the members of the Board of Review of the County for the year 1919.

Dr. E. T. Gatewood,

Ex-Eye and Ear House Surgeon at the New York Post-Graduate Hospital, but more recently associated with Dr. Samuel C. Bowen, deceased, continues the practice of his profession in the same offices at 316 East Franklin Street.

Hold On To Uncle Sam's Insurance.

Approximately 4,000,000 officers and men of the Army and Navy are insured with the U.

S. Government for a grand total of almost thirty-seven billion dollars. Owners of this insurance are given the privilege of continuing it, but if the insurance be allowed to lapse, it cannot be regained. By the regular payment of premiums, this insurance may be changed into a standard Government policy without medical examination. The Government will write ordinary life insurance, twenty-payment life, endowment maturing at age 62, and other usual forms of insurance. "Pass the word" on to an interested party.

Legal Handbook For Guidance Of Soldiers And Sailors.

The Honorable Lewis H. Machen, Chairman of the Legal Committee, Virginia Council of Defense, has compiled a booklet of thirty pages, pocket-sized, which gives in a simple and comprehensible manner the digest of the national and state laws which deal with the rights and privileges of our men in the military service of the United States. Those interested in the welfare of the soldier, especially those who wish to advise him and his family, should have this book, and it will be sent to any lawyer, or to any other person in the State interested in the soldier's welfare.

It deals with allotments and allowances for fighters and their families, fighter's compensation, automatic and voluntary insurance of soldiers, the U. S. Civil relief act and Virginia relief acts, civil rights under the laws of Virginia, agency, bank accounts, exemptions, deeds, descents and distributions, wills, administration of estates, guardianship and custody of children, absent voting, and Red Cross home service. The booklet is complete and the facts are set forth simply and directly.

For Sale—One Bausch and Lomb microscope with two objectives A and B. In perfect condition. Price fifty dollars. *Write Dr. J. E. Copeland, Round Hill, Virginia.*—(Adv.)

Major Arthur H. Crosbie, M. C.,

Who has been in charge of U. S. Army General Hospital No. 22, Richmond College, Va., since its opening, has received his discharge and returned to his home in Boston to resume his work. Major William Galbreath has succeeded him.

Dr. J. W. Kelly,

Big Stone Gap, Va., has resigned the position of general manager of the Intermont Coal and Iron Corporation in that place.

Dr. William Lyle Ould,

Concord, Va., was recommended for district deputy for the year, of Hill City Lodge, No. 183, A. F. and A. M., at its annual meeting in December.

Dr. Arthur B. Cosby,

Of this city, sustained severe lacerations about the face and hands and suffered a broken rib, when his automobile collided with a street car the latter part of December. The beclouded condition of the windshield from rain somewhat obscured his view and the slippery condition of the street prevented him from stopping his auto as promptly as he might otherwise have done.

Dr. Ben F. Brugh,

Late of Hansford, W. Va., January 1, located at Montgomery, W. Va., for the practice of his profession.

Dr. Franklin D. Wilson,

Of South Norfolk, Va., has left for Boston, to take a special course in eye, ear, nose and throat diseases.

The Tri-State Medical Association Of The Carolinas And Virginia

Will hold its annual meeting in this city in February, under the presidency of Dr. R. S. Cathcart, Charleston, S. C. Dr. Rolfe E. Hughes, Laurens, S. C., is secretary-treasurer, and will gladly furnish any information desired. The fact that a number of doctors are returning from the army service should make this a kind of reunion meeting.

Army Hospitals Reclassified For Treatment Of Troops.

The War Department has reclassified army hospitals so that similar cases will be grouped at certain hospitals for treatment. Special facilities for the treatment of the cases sent to each will be provided there, and assignment of specialists in those lines from the army doctors will be made accordingly. Among the special groups created under the new plan are

cases of blindness or near blindness which will go to General Hospital No. 7, Roland Park, Md. Cases of deafness and facial injuries are to be sent to Camp May, N. J., and General Hospital No. 2, Fort McHenry, Md., and Walter Reed Hospital, Washington. All amputations, except those of fingers and toes are assigned to seven selected hospitals at Rahway, N. J., Washington, San Francisco, Fort McPherson, Boston, Fort Des Moines and Fort Snelling, Minn. Insane officers will go to General Hospital No. 1, Williams bridge, N. Y.

Insane patients will be treated at ten other institutions: drug addicts will be sent to Plattsburg Barracks, N. Y., and other medical cases, including those of gassed men, will be divided among twenty-six hospitals.

Special provision has been made for cases requiring foot surgery, paralysis and other nerve injuries, tuberculosis, wounds of the head, and for such patients as would be benefited by the waters of hot springs.

Two Journals In One Month.

A few weeks ago, we received an announcement from the *Medical Review of Reviews*, advising us that they had just purchased the *Buffalo Medical Journal*, which was to be consolidated with their own publication in January. Another announcement advises that they have also purchased *The Southern Practitioner*, which will also be consolidated with the *Review* this month.

This is the fourth Journal which the *Medical Review of Reviews* has purchased and consolidated under its present management, and certainly speaks well for the continued success of this publication. The *Medical Review of Reviews* announces that it hopes to purchase still other medical journals, and will pay cash for any that are for sale.

Obituary Record.

Dr. Samuel Cecil Bowen.

Of this city, a widely known specialist in diseases of the eye, ear, nose and throat, died December 20, in Chicago, to which place he had been called by the illness of his nephew. His death was due to pneumonia following influenza. The fact that he was ill in Chicago

was known to but few of his friends in this section and his death was to them a distinct shock.

Dr. Bowen was 37 years of age and an alumnus of Hampden-Sidney College, this State, and of the Medical College of Virginia, having taken his diploma from the last named institution in 1905. At that time he was appointed one of the internes at Memorial Hospital, this city. Dr. Bowen had always practised in this city and was exceedingly popular with both the profession and laity. At the time of his death he was associate professor of laryngology at the Medical College of Virginia. He is survived by his mother, two sisters and two brothers. The interment was in Tazewell, Va., his native home.

Dr. Charles Merwin Branch,

Of this city, died at Catawba Sanatorium, Va., December 14. He was forty-five years of age and studied medicine at the former University College of Medicine, this city, from which he graduated in 1898. His widow and several children survive him.

Dr. Edward Cross,

A prominent doctor of Texas and an honorary member of the Medical Society of Virginia, died at his home in Kingsville, Texas, November 30, aged 81 years. He was a graduate of Jefferson Medical College, Philadelphia, in 1859, and later took post graduate work at several schools. He served in the Confederate Army as an assistant surgeon. Upon the close of the war, he located in his native State—Arkansas—and was there prominently identified with the medical profession and established the first hospital in that State for the treatment of women. He later moved to San Antonio, Texas, and about ten years ago went to Kingsville. He is survived by his wife and a son.

Dr. Julian Chew Blackistone,

Of Washington, D. C., died at his home in that city, December 13, from osteosarcoma. He was thirty-seven years of age. Dr. Blackistone was a graduate of Georgetown University Medical School, Washington, in 1906, and had since practised in that city. He was professor of dermatology in this school at the time of his death.

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Original Communications.

CEREBRO-SPINAL SYPHILIS, AND ESPECIALLY ITS TREATMENT.*

By J. ALLISON HODGES, M. D., Richmond, Va.
Professor of Clinical Neurology and Psychiatry,
Medical College of Virginia.

As illustrating most of the prominent symptoms of Cerebro-Spinal Syphilis, I present to you tonight a rather typical case of Tabo-Paresis. This case exhibits no unusual symptoms, and the most significant are mainly meningo-myelitic in character, which fact probably justifies a more hopeful prognosis from treatment than this class of cases usually offers.

This patient is a male, 48 years of age, and admits infection approximately eight years ago. This admission, verified since his entrance into the wards six weeks ago, by positive blood and spinal Wassermann reactions, obviates the necessity for detailing his previous family and personal history.

At the time of our first examination, the oculo-cardiac reflex was easily demonstrable, and the patient was mentally dull, and generally apathetic, and spoke only when addressed directly. He complained of fugitive, lightning-like pains in his back, and his gait was markedly ataxic. He was not at that time suffering from any severe pain, but gave a history of gastric and renal crises occurring at irregular intervals, associated with incomplete girdle pains around the lower part of the trunk. His muscles were hypotonic, and there was anaesthesia over the inside of the arms and

the lower limbs. Tendinous analgesia (Abadie's sign) was also present, and there was "delayed sensation" in the extremities. The deep reflexes of the knees and ankle joints were abolished, and the Argyll-Robertson pupil was typical. The patient also suffered from incontinence of urine and feces, and there were several small bed-sores over the lower spine.

Tonight, after six weeks treatment, his condition is substantially the same, but there is some apparent improvement. The incontinence is some better, but still occurs at least once daily, and the abolition of the reflexes still persists, but most of the other symptoms appear to be slightly improved. The patient insists that he is better, and his mentality is apparently not so much impaired as it was on admission, for his mental reflexes are quickened, he is more alert and his memory is improved. He, however, is still not sufficiently responsive to external stimuli, and does not initiate normally, and is still indifferent and careless about his person and dress. The bed sores, on the other hand, which at first had a tendency to increase and enlarge and break down, have almost entirely healed, and the tabetic pains and crises have been entirely absent now for more than two weeks, and likewise the ataxic gait has improved, especially the patient's ability to walk when his eyes are closed, and not fall when his base is narrowed.

The proper estimation, then, of the value of the treatment employed in this case naturally arises, and it is to this feature, that I desire especially to direct your attention.

As is well known, this class of cases of the central nervous system are notoriously re-

*Clinic before Memorial Hospital Staff.

bellions to treatment, although many of them are subject to more or less complete remission in the development of their symptoms. This single case cannot, of course, be taken as a criterion, or even considered as a satisfactory test of any special method of treatment, but it will serve as an illustration of our purpose.

In the treatment of these cases of nervous syphilis, there has seemed to us that either there was too much dogmatism, on the one hand, or too much variation and want of system, on the other, and consequently there has arisen in the minds of many practitioners, a natural confusion and uncertainty as to the proper course to pursue because of this conflicting testimony by different specialists.

Usually each observer is more or less fixed in his ideas as to efficacy of a certain method, especially if he initiates it, and it appears to be a fact that in the case of the physician, just as in that of the surgeon, the original discoverer of some special method usually does get the best results from that particular procedure.

It is a fact, however, that a comparison of the results obtained from the old methods of treatment with those from the newer, must convince any impartial observer that the latter are at least worthy of trial. It is also true that no definite method has yet been inaugurated by any one which has been entirely acceptable, but the therapeutic way has unquestionably been blazed, and the future success of treatment lies in the perfection of some one of the methods utilized in recent years.

The definite aim in all of these later procedures in treating Cerebro-Spinal Syphilis, is to secure results by bringing the spirocheticidal reagents into direct contact with the foci of the disease in the Cerebro-Spinal system, and the remedies are consequently used either intravenously, intraspinally, or intracerebrally. Neither of these methods has been uniformly, nor even relatively successful in all cases, and this has been the invariable result whether salvarsan, salvarsanized serum, mercurialized serum, or other like remedies or combinations were employed.

In early manifestations, especially, of nervous and mental disease, results little short of brilliant have been obtained by each of these methods in some cases, but in advanced cases, if we follow them up long enough, and note

tendency to recurrences, we are forced to conclude that a definitely successful and applicable method of treatment of nervous and mental diseases of syphilitic origin has not yet been discovered, and while we are optimistic, we are not oversanguine, for the close adherence to any one or other particular method of treatment does not seem to be justified by the facts.

In our experience, we have learned to expect the best results in the later manifestations of the disease from the employment of different anti-syphilitics in different specifically diseased conditions, and occasionally even varying the method of their application.

Our almost invariable rule in recent years has been to use salvarsan, or one of its congeners, by the intravenous method, and to use it intensively, and we believe that as favorable results as to the clinical symptoms and a normal serologic picture have been obtained, as have been secured by any other method in vogue.

Occasionally, however, other methods and anti-syphilitics have been used by us, but intraspinal medication, which, according to a number of authorities, is not always entirely harmless, and certainly frequently attended with pain, has not often been employed, though, in view of the excellent testimony of other competent observers, there may be some cases in which, in the event of failure of the intravenous method, the patient should not be deprived of any further hope by denying him intraspinal medication.

In our opinion, all things considered, salvarsan used intravenously and administered in small doses, frequently repeated, is one of the best single remedies in the treatment of syphilis of the nervous system, and accomplishes all that can be obtained by the intraspinal method.

In recently reviewing cases that have been personally treated by us within the last few years, it was apparently in evidence that certain types of syphilitic nervous disease responded most favorably to certain methods of treatment as follows: *first*, the type represented by the early manifestation of nervous syphilis, which has apparently responded most satisfactorily to salvarsan (intravenously), and later, mercury by intramuscular injections, or by inunction; *second*, the type including the later forms of central nervous syphilis of the exudative type (the stage commonly called

"tertiary syphilis"), which has yielded most successfully to salvarsan (intravenously), and later, potassium iodide internally, and injections of albuminate of mercury locally; *third*, the tabetic type, which has been influenced most radically in an experience of twenty-one cases, by salvarsan (intravenously), followed by mercury, locally or systemically.

This does not mean that all of these cases were cured, for only two of this number after nearly six years, now appear to remain well, but it does mean that the majority of the remainder were materially benefited, especially as regards the tabetic pains and vesical symptoms, only four evidencing no improvement at all.

The meningo-myelitic forms of a tabetic type appear to be most readily benefited by this method, but in a few cases, the additions of intraspinal injections of serum to intravenous treatment of salvarsan has appeared to hasten the elimination of abnormal elements in the cerebro-spinal fluid. The cases mentioned were subjected to from three to twenty-two treatments each, and in every case, it is advisable to continue this intensive method until the cerebro-spinal fluid is normal, and remains so.

Homer Swift contends that there is a certain number of these cases, however, which show a satisfactory response to intraspinal treatment only.

In other types of nervous syphilis, notably paralytic dementia and the spastic forms of spinal paralysis (especially the Erb type) the response to treatment for us by any of these methods has been disappointing, and the only benefit obtained has been an increase in the number and length of the remissions and the apparent retardation of the disease.

According to the reports of recent observers, for example, Evans and Thorne, who used the intraspinal method alone in twenty odd cases of parietic dementia, their conclusion was that it was of "little or no therapeutic value" in this series.

Likewise, Dunton and Sargent report results in eighty-eight cases of paresis which are not particularly encouraging, though in ten of this series treated by the Swift-Ellis method, it was thought that the duration of the disease was cut to about one half as compared with cases treated by older methods.

On the other hand, Graeme Hammond, Norman Sharpe and Wheeler Smith are much

encouraged by the excellent results obtained by them in eleven cases by injections of salvarsan into the lateral ventricle in the early stages of paresis.

These reports prove that some cases of nervous syphilis do not respond to any treatment, and that others may respond, and then relapse, and thus demonstrate that unfortunately, our modern methods, while usually of great value, are yet not satisfactory in all cases.

In general, the lesions due to inflammation or exudation are much improved, or are eliminated more speedily and radically by the more recent methods, and quite as expeditiously and efficiently by the intravenous as any other, but those conditions due to specific degenerations are little, if any, affected by any method so far employed.

The case now under consideration presents an interesting question of prognosis and the utility of further treatment when the comparative symptoms as detailed in the beginning are considered.

The patient has just received to-day his fifth intravenous treatment of diarsenol and, while the results, especially as regards the bedsores and ataxia, are encouraging, yet there is no very appreciable improvement otherwise. If, however, there is further improvement, or even the present status is maintained, additional treatment will be given according to the future evidence of improvement as demonstrated by the blood serum and the spinal fluid of the patient.

This case, also, with its apparent present improvement, suggests again the contention that has arisen recently as to the efficacy of the intravenous as compared with the intraspinal method of treating these cases.

Bernard Sachs, who admits being one of the earliest victims of the fascinating theory that intraspinal medication was the most direct method of reaching the disease-foci, now confesses to a change of mind because his later clinical experiences have taught him that intravenous treatment, in small dosage and repeated at frequent intervals, produces results entirely satisfactory and at least comparable with those obtained by intraspinal medication. He claims the procedure is safer, and that the old doctrine, that the choroid plexus was impermeable and that salvarsan introduced in-

travenously could not be expected to reach the cerebral or spinal tissues, had to be abandoned because his clinical experience taught him the reverse.

He further contends that all recent physiologic experiments appear to show that a metallic substance like salvarsan or salvarsanized serum, even if introduced into the spinal canal, does not remain in the cerebro-spinal fluid for any length of time, but is rapidly absorbed into the venous system, and hence this circuitous route by lumbar puncture is no improvement, even if it be the equal of the intravenous method. Furthermore, the antisypilitic remedies, frequently ten to thirty or more injections, cannot be given so intensively, by the intraspinal method, because such treatments would prove most disagreeable, if not harmful to the patient.

Personally, our experience with the use of other different sera that have been employed in the treatment of these cases has been too limited to be of clinical value, but in a comparison of mercurialized serum and salvarsanized serum, David A. Haller states that the irritating effect in the spinal canal of serum to which mercuric chloride has been added in the dose of 0.001 gm. is greater than that of 20 c.c. of salvarsanized serum separated from blood drawn thirty minutes after a dose of 0.6 gm. of salvarsan, and that the average effect on the laboratory findings in the spinal fluid from one dose of mercurialized serum is greater than from one dose of salvarsanized serum.

He also states that unpleasant symptoms are more common following intraspinal mercurialized serum than following salvarsanized serum, and that the greater irritation of the meninges from mercurialized serum prevents as rapid repetition of dosage as is possible with salvarsanized serum.

Cases of general paresis, meningitis and cerebro-spinal syphilis stand intraspinal treatment with mercurialized serum better than do cases of tabes dorsalis, and it is particularly in cases of active syphilis of the meninges that the mercurialized serum appears useful.

Mercurialized serum, according to his experience as edited by Dix, has an advantage over salvarsanized serum in ease of preparation and in its keeping qualities, and for these reasons, it can be used under clinical conditions in which the use of salvarsanized serum

is impossible, or at least very much more difficult.

Such testimony as has been given, proves finally that the treatment of Cerebro-Spinal Syphilis is yet a *quaestio vexata* and it is still an open question in the minds of many practitioners, and certainly in ours, whether any more permanent or satisfactory results have so far been obtained by the later methods of treatment than were formerly secured by mercury and iodide via the alimentary canal.

Indeed, the results published recently of a series of five hundred cases treated at the Toronto General Hospital by the intravenous method, averaging seven doses of one of the arsenical compounds, with only seven per cent cured, so far as a Wassermann negation indicates a cure, is not very encouraging.

Consequently, further investigation would appear needful and opportune.

CASE OF CARCINOMA OF THE CECUM.*

By PAUL W. HOWLE, M. D., Richmond, Va.

Associate in Surgery and Gynecology, Medical College of Virginia

Mrs. L. R., admitted to the hospital January 1917; age, 32; has been married, "Twelve long miserable years"; occupation, housewife; nationality, Anglo Saxon U. S.

Family History.—Father 58 years old, has valvular heart disease and suffers with indigestion; mother in good health; four sisters and two brothers living and in good health, several died in infancy.

Menstrual History.—Periods began when about fourteen years of age and she has always been regular and normal.

Child-bearing History.—She has given birth to four children, the youngest being five years of age, and has had one miscarriage. All labors were normal. The miscarriage was the result of heavy house work incident to caring for a home and four children, with no assistance. After the foetus was expelled, a curettage was done and her recovery was uneventful.

Present Illness.—There was nothing suggestive of trouble until October 1916, about which time she began to notice discomfort after eating. Shortly after this, while on an automobile ride, she was seized with a severe pain in her abdomen, cramp-like in character, and ac-

*Read before the Richmond Surgical Society.

accompanied with nausea and vomiting. She does not know whether she had any temperature or not. The attack lasted about twenty-four hours, gradually subsiding until the following day when only soreness throughout the abdomen and right side was noticed. She was told by her family physician that he thought the trouble was due to a floating kidney. Several weeks later she went for another automobile ride, and was taken with a similar attack, and about a month later she went again with the same result. Her physician told her that he thought he could feel the right kidney and appeared very positive of his diagnosis. I questioned her closely, and the attacks certainly were suggestive of Dietl's crises, though there were no vesical symptoms or referred pains down the groin or leg.

Physical Examination. Patient presented a very healthy appearance, about five feet seven inches tall, weight 150 lbs. Careful examination of the mouth, nose and chest revealed nothing abnormal. Abdomen soft, with a rather thick wall. Liver and spleen normal. Just to the right of the umbilicus there was a mass, a little larger than a normal kidney, though bearing no similarity to it in shape. It was slightly tender, but not really painful upon deep pressure. It was not entirely fixed though could not be pushed upward as probably would have been the case with a movable kidney.

Vaginal Examination revealed a lacerated perineum with a moderate rectocele. The cervix was enlarged with a bilateral tear. The uterus was also enlarged, freely movable, and in fairly good position. No masses or painful areas could be made out in either tubal regions.

Laboratory Reports.—Blood—Leucocytes, 10,800. Large mononuclears, 8; Polys, 66; Eosinophiles, 1; Hemoglobin, 90. Wassermann, negative. Urine, specific gravity 1010; reaction, acid; color, clear straw; albumin, faint trace; acetone, negative; sugar, negative; diacetic acid, negative; casts, none. Red Blood Cells, occasional; pus, occasional.

X-ray Report showed a mass about the size of the palm of the hand, perhaps a little larger, just to the right of the umbilicus, and below the lower border of the kidney. A faint outline of the right kidney may be seen just

above the mass, and it does not appear to be attached to it.

Diagnosis Before Operation.—Probably an inflammatory mass involving the cecum and appendix, with the appendix as the chief offender.

Operation.—Date, January the fourth as follows: A gentle curettage of the uterus was done, and the tears in the cervix and perineum were repaired. The abdomen was opened through a right rectus incision and the mass was brought into view with very little difficulty. Careful inspection was made and the appendix was found curled upon and adherent to the cecum. The ileum was likewise adherent to the cecum along with much thickened omentum. Owing to the ease with which the adhesions were liberated, the age of the patient, and the fact that there was nothing otherwise suggestive of tuberculosis or malignancy it was decided that the trouble was more than probably inflammatory, and would clear up when the focus was removed; hence, an appendectomy was done and the wound closed. The appendix was sent to the laboratory, with the report that it showed inflammatory tissue, but no evidence of malignancy. She was quite sick for the first two or three days, but after this, she improved rapidly and left the hospital in good condition on the 22nd day.

Several weeks past before I heard from her, and the news was not very encouraging. She stated that she had not gained her strength as she had hoped, and there was still some discomfort in her right side. There was a decided tendency to constipation. Later on when I saw her I was struck with the fact that she was anemic, she had not gained in weight, and upon examining her right side, I found the mass in the original area and if any thing it appeared larger and was more tender than before. I felt certain that I had either a malignant or tubercular condition to deal with, and that a gradual closing of the ileo-cecal valve was taking place. I advised a second operation to which she was opposed, but agreed to return to the hospital for further observation. I had several surgeons see her, and the opinion seemed about evenly divided between the two above conditions. Further symptoms of obstruction accomplished what my argument had failed to do, and she came to operation the

second time on the 19th of March, a little more than two months after the first.

The abdomen was opened through the former scar. Adhesions were the first thing encountered in exploring the right quadrant, the mass was found adherent to the parietal peritoneum, and was liberated with quite some difficulty. Attached to the cecum was a large piece of thickened omentum throughout which could be felt lymph nodes of varying sizes. Steps were taken for resection well into the healthy gut both above and below the diseased area, and an end to end anastomosis was done. Apparently, all the diseased tissue was removed.

She reacted promptly, and aside from a stitch abscess which developed in the second week she had a satisfactory convalescence, and left the hospital on the thirtieth day.

Laboratory Report.—Dr. E. G. Hopkins examined the specimen and reported carcinoma.

The patient returned to her home in Roanoke so that I am unable to report in detail the later developments, but I was told that in the course of about two months she began to cough, and suffered quite a deal of pain in her chest, chiefly her right lung. So far as I have been able to learn there were no further symptoms of obstruction. Her condition gradually grew worse until her death the early part of September. I believe that she died of metastasis, the return probably having occurred in her right lung.

This case of carcinoma of the cecum is of peculiar interest to me, first, because I have never seen a case in a patient so young, and secondly it taught me never to do patch work on a bowel that is thickened and diseased from any cause. Possibly the end might have been the same had I resected at the time of the first operation, but she would unquestionably have had a better chance had this been done.

As to the cause of this condition, I am not at all sure that the appendix was the precancerous focus; I am rather inclined to think that there was a diverticulitis in the cecum, and the little hard balls of fecal matter which are usually present in these cases, keeping up a constant irritation, were the prime factor. My reason for thinking this is that the appendix when removed did not show malignancy, but the cecum was involved from the first.

1015 West Franklin Street.

SYMMETRICAL GANGRENE (RAYNAUD'S DISEASE), WITH REPORT OF A CASE.*

By M. L. DALTON, M. D. Floyd, Va.

This disease was first described by Maurice Raynaud in 1862. Very little has been written on it. Most books mention it and say it usually occurs on fingers or lobes of the ears. A few authorities mention that it may attack the limbs. In a practice of twenty years I have seen only five cases; three of these were of the finger and reached only the syncopic stage followed by congestion. Another case occurred in an old lady 78 years old, and came on during an attack of pneumonia. The right leg presented all symptoms of the disease, but as the patient died the following day, I could not fully verify this case.

The one I wish to mention more fully was in a young man, Mr. C. T., age 27.

Family History.—Mother died at age of 30 with tuberculosis; father living and in good health.

Present History.—Was called July 21st, 1918, and found patient suffering from severe cramp like pain in calf of left leg, which began about 12 hours before. On examining the limb, found it cold and with a peculiar pallor; no circulation could be detected, muscles of calf were hard as if in a state of tonic contraction. On general examination, found patient to be suffering with tuberculosis of both lungs in advanced stage.

Past History.—Gave a history of being a hard drinker; had pneumonia 6 years before, since which time he had had a cough, but had been able to do good work on the farm until one month before. Cough then grew worse and had been unable to do any work since.

Treatment.—I ordered the limb to be slightly elevated and applied heat and massage. Gave Nitro-glycerine, 1/100 grain every four hours and morphine for pain. Was called back the following morning and found the pain had attacked the calf of right leg the night before, or about 24 hours after it began in the left. I found the same condition in right leg that had been found in the left on previous day. The condition in the left limb had not improved, but slight reddish discoloration was beginning to appear in the skin. This condi-

*This paper was on the Programme of the Medical Society of Virginia that was to have been held at Richmond, October 1918.

tion continued, going on to discoloration and gangrene of rather dry variety, which extended finally to the body on left side, but in the right did not go above the knee. A septic fever developed and death closed the scene on August 1st, or 12 days from the beginning.

In my opinion and the opinion of several good men whom I have consulted, this was a true case of Raynaud's Disease of a septic origin from the tubercular condition, and I wish to report it owing to the rarity of the disease, and the fact that it became so extensive and attacked the limbs instead of fingers, as is more commonly reported.

SOME POINTS IN THE MAKING OF A USEFUL STUMP.*

By HENRY A. BRADY,

1st. Lieutenant, M. C., U. S. A. With American Expeditionary Forces in France.

In writing this paper it is my purpose to try to throw some light on the difficulties which present themselves to the Military Surgeon, who finds himself confronted with the oftentimes tedious task of making a stump useful, after an amputation performed under war conditions. The stump to be useful must have the maximum amount of mobility possible for its location; must be free from tenderness, pain, ulcerated areas must be smooth and as near cosmetically perfect as it is possible to make them.

The conditions one most often meets causing trouble and delay are: Sinuses, tender or painful areas, ulcers, infolding scars, spurs and contractions. Sinuses are always due to some foreign body, or tissue which, through some pathological change, has become a foreign body. Large and small pieces of metal, silk ligatures, pieces of dead bone (sequestra) are all causes of sinus formation and must be carefully removed. Pieces of metal are usually easily located with the X-ray.

Sequestra are also usually easily located with the X-ray unless they are very small or thin when several pictures, taken from different angles may be necessary to locate them. Even the most minute sequestra must be removed. Sequestra are often very troublesome and, when removed, new ones sometimes form, due to periosteum being stripped back and the bone left exposed to infection without a periosteal covering,

causing it to die and separate later as a new sequestrum. It is always well to cover all denuded bone with periosteum, leaving a good space for drainage. This is not always as difficult as one would think, for the periosteum covering the new bone, which is nearly always present in those cases, if preserved, is often ample for our purpose. X-ray findings are not always accurate in these cases and one has to go much deeper and cut away more from the end of the bone than it would appear to be necessary to get all the sequestra, which are often multiple. In nearly all cases it is advisable to cut away the new bone and sometimes to reamputate to make sure, for if even the most minute piece of sequestrum is left it will cause trouble later.

Tender or painful areas are due to nerve bulbs or to nerves getting caught in the scar. These are best treated by resecting the nerves supplying the area. It is not always sufficient to simply divide the nerve or even to take a piece out, nor does crushing and division suffice always, to prevent the formation of new bulbs. It is better to strip the nerve sheath back and ligate it over the end of the fibers so as to limit their growth. It will sometimes be necessary to thus treat all the nerves supplying the stump to get the offending one.

Ulcers are usually due to tension, contraction of scars which cut off the blood supply to a limited area, infolding scars with deep crevices which allow the accumulation of dirt and secretions on account of the difficulty or impossibility of cleaning them, and varicose veins. Ulcers due to tension are treated by relieving the tension. This often necessitates reamputation. Ulcers due to infolded cicatrix are treated by retrimming with excision of the cicatrix. Varicose ulcers are treated by excision of the ulcer and the veins draining the area.

Spurs, I believe, are due to pieces of periosteum being stripped up and left attached to muscle and afterwards forming new bone. Spurs if causing trouble should be excised, the excess periosteum cut away, and the raw bone surface covered over with periosteum. Contractions are treated by forcible stretching and massage.

Nearly all of these operations must be done in the presence of infection and there is little use to try to wait for healing for, after months of waiting, one finds the cases have made no

*Authority to publish granted by Board of Publication, S. G. O.

progress and time has been wasted and expense incurred to no avail. Clean them up as much as possible with rest in bed and Carrel-Dakin solution, and operate on them as soon as they are quiescent, always allowing for free drainage. Always, it is necessary to approximate the skin edges carefully and put in retention sutures to relieve the tension on the skin stitches. for otherwise the swelling is so great that the skin edges carefully and put in retention and the whole operation be spoiled. Another thing that will defeat the purpose of these operations, if careful attention is not paid to hemostasis, is secondary hemorrhage with the formation of hematomas. Hematoma in these cases is a most painful condition and always requires a second operation to relieve it. Very careful and complete hemostasis is necessary to prevent the formation of hematoma. The reason for this is probably that the vessels are dilated and the pressure increased on account of the shortening of the limb.

Home address, Danville, Va.

INFLUENZA.

By F. M. DILLARD, M. D., Mineral, Va.

Physician and Surgeon to Sulphur Mining & R. R. Co.

The extent and expense of the great epidemics of influenza, and the almost countless numbers of the inhabitants of the various countries of the world who are taken sick within a very short time after the disease is once started upon its mission of devastation, the varied and vast interests, both public and private, which are jeopardized, and the fact that the mortality rate is fearfully increased, are considerations which prove influenza to be no trifling affection, but prove that it should be classed along with smallpox and pneumonia (the king of death.)

The literature of the disease establishes the fact that it has been and is an interesting subject to the historian. There are records of epidemics resembling influenza as far back as the thirteenth century. The first epidemic recorded by medical writers occurred in 1510 and raged over all Europe. It was especially bad in Spain and proved fatal to Ann, wife of Phillip of Spain, and then was regarded as a new disease. Very probably this is why the name "Spanish Influenza" has been given to this terrible plague to-day. The epidemic of 1510 was thought caused by a pestilential fog

and was driven over the country by strong winds; by some it was thought to be inflicted on the inhabitants for singing a licentious song.

In 1729-30 an epidemic raged over all Europe and was attributed to changes of weather from heat to cold, and cold to heat. This catarrhal fever visited every part of Europe in the course of five months and in Paris and London was very fatal, in the latter place destroying a thousand a week.

What do we know about our country-wide epidemic of to-day? We have all watched and read with interest the reports and findings of numerous laboratory tests and investigations, into the bacteriological cause of influenza, and with all our work and study we are still far at sea. We do know that of all epidemics it is the most contagious, rapid in progress, sudden in invasion and extensive in range, and is accompanied with prostration and depression of strength far greater than is proportionate either to the febrile excitement, or to the accompanying local disorders. It is an essential epidemic fever, characterized by a catarrhal inflammation of the respiratory organs, and sometimes of the digestive tract, severe headache, great prostration with general muscular soreness and weakness. We are obliged to say we know very little more of the real cause of the disease to-day than was known a hundred years ago. In its ravages it has slighted no class or color, and has attacked persons regardless of age, sex, constitution or condition.

The diagnosis as we all know is not difficult. In addition to the clinical features of the disease, the sudden appearance, rapid spread and the large number of people affected in a short time, will attract the attention and exclude other epidemics.

The treatment naturally consists in prophylaxis and treatment of the disease and its complications. We are now having or have had our second epidemic of influenza, in less than four months and the question is, will we continue to have spreads and outbreaks of the disease until we adopt some method of quarantine and strict isolation? In my county I know personally of two cases where teachers continued their work in public schools, while running temperatures of 103°, and did not stop until their illness made them, or until every pupil had contracted the disease from them.

Who is to blame for this horrible situation which is practically the same all over our state? There is no established treatment of the disease. In the last three or four weeks we have had an epidemic that has hardly missed a single family for miles around, and in that time I have looked after, or have tried to look after, from three hundred to five hundred cases, with only two deaths. Figuring that it is an acidosis that caused most of the complications and deaths, I load them all up on bicarbonate of soda and citrate of potash, and a frequent dose of castor oil and keep them absolutely in bed until two or three days after temperature has left them. I find that it is best not to starve them, but to give them a simple supportive diet and their general muscular weakness will not be so marked on convalescence.

REPORT OF CASE OF SYPHILIS OF THIRD GENERATION.

By THOMAS W. MURRELL, M. D., Richmond, Va.

Syphilis transmitted to the third generation has always been a clinical belief and I would report a case which, as far as possible, I have proved by the Wassermann.

Mrs. M. was referred to me by Dr. W. W. Gill, with an eruption on her upper lip. She was being treated by Dr. Gill for an atrophic rhinitis present for many years, but the eruption had appeared in the last few months.

The eruption was in the form of a large meaty papule and was suggestive of syphilis. There being no history of this disease, a Wassermann was made which was positive on cholesterinized antigen. Salvarsan was administered with complete relief of the skin condition. When the diagnosis was made, the husband, much worried, consulted me. A Wassermann on him was entirely negative.

I am convinced of the purity of the woman who consulted me. Her interest was intelligent and her bearing was such that I have no doubt of her statement of her past conduct. Her case was, therefore, decided to be hereditary.

Her father had died of paralysis several years before. She states that several years before he died, he had leg ulcers so bad as to necessitate the amputation of one leg below the knee.

At this time, her mother, a lady over sixty,

was normal. Six months after I started to treat Mrs. M., her mother became mentally affected, finally developing a well-marked case of paresis. Though I attempted to obtain a Wassermann from her, she absolutely refused and in a violent way.

Two months after I saw the mother with paresis, Mrs. M. brought to me her nine year old son, who was suffering with typical gumma on the left tibia. A Wassermann was done and was positive on all antigens. He also answered readily to treatment.

To recapitulate.—Both the maternal grandfather and grandmother give histories that are decidedly specific. The mother and son had active syphilis, demonstrated by the Wassermann. The father was negative.

While granting the defect of complete knowledge of the behavior of the women before marriage, I am convinced of her honesty and therefore report this as a case of syphilis of the third generation proved by the Wassermann.

17 East Grace Street.

Proceedings of Societies, Etc.

ROANOKE ACADEMY OF MEDICINE.

Owing to the absence in war work, army and navy service, of a large percentage of our membership, and by reason of epidemic of influenza prevailing the past several months, the attendance at our meetings has not been nearly so good as it formerly was. In fact, a number of meetings failed for lack of quorum. A few items in the way of review of work accomplished during the present session, may be of interest.

Dr. W. Brownley Foster was chosen president at the first meeting of the session, and Dr. E. P. Tompkins was re-elected secretary, but after a few months resigned, Dr. R. L. Mason being elected his successor.

Among the various essays presented at the several meetings, the following may be specially mentioned: Dr. Pedigo spoke very interestingly of his experiences at Tom's Creek, where he went to attend employees of the V. I. C. & C. Co., coal miners. He advocated the "sedative dose" of calomel. It was liberally discussed. Dr. H. B. Stone made an instructive address on "The Eye Lesions of Influenza,"

using as a frame-work a paper written by Dr. Ed. Jackson. Many members spoke in the discussion following.

Dr. John W. Preston's dissertation was a general one, on matters pertaining to the practice of medicine other than its strictly clinical features, such as a tabulation of practical nurses and giving instruction, in order to help fill a demand for which the supply of graduate nurses is inadequate; likewise instructing the public through public press and otherwise as to its relation to the medical profession.

Dr. E. E. Watson read a paper on "Tuberculosis and Pregnancy," written in his usual felicitous style, and conveying valuable points.

Dr. T. D. Armistead reported a case dealing with the very varied, very striking and multiple sequelae of influenza.

Dr. E. P. Tompkins reported a case of diabetes with specific gravity of urine of 1052.

Dr. M. R. Faville made his maiden effort before this body, in a most scholarly essay dealing with the question of tonsillectomy in singers. A singer of ability himself, as well as a very capable practitioner of his specialty, Dr. Faville spoke with authority, and at the same time presented his subject so attractively as to call forth the wish that his succeeding papers may be frequent.

A called meeting was held on January 24th, the occasion for which was the death of Dr. Walter S. Slicer. The following resolution was adopted:

"This organization has learned with sorrow of the death of Dr. Walter S. Slicer, for some years past a member of this society and a physician and surgeon of this city. Possessed of many admirable traits of character, and endowed with no mediocre ability as a practitioner of surgery, Dr. Slicer endeared himself to a wide clientele, and at the same time, as an aggressive business man, he worked with zeal for the upbuilding of Roanoke as a medical center.

(Signed) J. R. GARRETT,
J. D. WILLIS,
G. M. MAXWELL,
Committee."

A number of the Roanoke physicians have returned from army service, amongst the number being Drs. Brown, Maxwell, Muse, Powell, Saunders and Willis. Dr. Kirk, it is reported, is expected back soon, and Drs. Trout and

Jones are said to be now on the ocean returning from France. The Jefferson Hospital is fast being put in order for re-opening.

Dr. H. E. Jones is rapidly recovering from a knee injury received in a recent fall.

Dr. J. H. Bogle is spending some time in Florida recuperating from an attack of rheumatism.

The Thursday Luncheon Club holds regular meetings, pleasurable and profitable to all who attend.

E. P. TOMPKINS, *Secretary.*

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Reported by Emil Mayer, M. D., New York, N. Y.

(Continued from page 268)

Removal of Foreign Bodies From the Larynx, Disproving Previously Made Diagnoses.

By HILL HASTINGS, M. D., Los Angeles.

The rapidly growing use of direct laryngoscopy is showing up many incorrect diagnoses, especially in children, where foreign bodies were found in the larynx and trachea. The increasing number of them makes one feel that it is worth while to report all such cases.

Case 1.—Baby L., aged seventeen months, had been sick for a week with "croup," with gradually increasing obstruction to breathing. The father, a physician, and a brother practitioner, had been treating the patient with the feeling that the trouble was "croup," with slight bronchitis. No diphtheritic membrane had been seen in the throat, and cultures from the secretion had been negative for diphtheria. There had been slight respiratory obstruction and a little fever—100.6 degrees the highest. The baby was asleep in bed at the time of our consultation, and was breathing with audible roughness, but without cyanosis and without any considerable difficulty. The possibility of foreign body impaction was suggested, whereupon the father said he dated the trouble to a little choking spell which the child had had when fed some soft boiled egg; but that the child had not really suffered much until two or three days later, when the increasing croupy cough and cry and a little fever had made him disregard the choking event. On waking the child its crying increased the dyspnea and brought on some cyanosis, which subsided quickly when the child again became quiet. Indirect laryngoscopy was a failure. The father preferred to await the result of

X-ray examination and the use of simple therapeutic measures before allowing direct laryngoscopic examination. The X-ray examination was negative. The child's obstruction grew gradually worse, and direct laryngoscopic examination was agreed to. After a consideration of the danger of operating without a preliminary tracheotomy, it was finally decided to do a tracheotomy. With the use of Jackson's small-size laryngeal speculum, a piece of egg shell was found embedded in the larynx, between the cords, protruding into the glottis. The egg shell was easily removed. Convalescence was uneventful. The tracheotomy tube was not removed for three or four days because of the difficulty in breathing that resulted on attempts to do without it, which supported the contention that a preliminary tracheotomy was advisable.

The history of the second case was rather indefinite. Baby W., sixteen months old, was hurriedly brought from the country to the California Hospital because of great dyspnea. The child was already on the operating table when the writer first saw it. The only history obtained was that the illness dated back fifteen days to choking spell that occurred while the child was sucking a piece of mutton chop bone.

Foreign body impaction was at once suspected. Immediate tracheotomy was done without any anesthetic. The patient was practically unconscious from the deep cyanosis. On opening the trachea, immediate relief was obtained and the acute pigeon-breast, tumor-like appearance at once disappeared. The end of a piece of bone was felt at the tracheal opening. The bone, rather firmly impacted above in the larynx, was removed by forceps. It was a large, rather thick sliver, about one inch long, sharp at its upper end. The child's fever and considerable purulent discharge and cough continued for a few days. Recovery was complete, and the patient was discharged on the sixteenth day.

DISCUSSION.

Dr. John F. Barnhill, Indianapolis: I have seen two similar cases. One in a child that had been treated for about four days. This child had a safety pin just below the larynx, closed end down. Tracheotomy was done with easy removal of the pin. Complete recovery followed.

Another child, thirteen months old, with exactly such a history and in a condition as the doctor described in his paper. The child was treated, as I remember, by four different physicians, all for croup. One believed the child had asthma. The X-ray showed a safety pin in such a location, which was easily removed by tracheotomy.

Dr. Harmon Smith, New York City: A case comes to mind of a patient six years of age, treated by six different doctors. It was treated for diphtheria and had antitoxins, had intubation done on two different occasions, and was finally sent to me by a prominent nose and throat specialist to remove a papilloma of the larynx. So I prepared on his diagnosis, for a removal of a papilloma of the larynx. As I was going to remove it I saw the tip end of a safety pin lodged in the anterior commissure, wedged in between the two vocal cords. After its removal there was no further trouble.

Dr. Thomas Halstead, Syracuse: I had a case which was more or less similar to the egg shell case. This child was also treated for diphtheria and had antitoxin for two or three weeks, and then a diagnosis of a probable foreign body was made. That was before the days of bronchoscopy. Tracheotomy was done and three pieces of egg shell were removed; the child recovered.

Since the beginning of bronchoscopy I have operated through the bronchoscope two children, eight months of age, one in which we found a fish bone below the vocal cords, which was removed, and in the other a spicule of glass was found, but which was not removed. We got hold of it, but it slipped the forceps.

As long as fifteen years ago I reported seven cases of foreign bodies in children, all between two and three years of age, all seen and operated within a period of two and one-half years. Recovery of the foreign bodies in these seven cases took place by means of tracheotomy. Six of the children recovered, one dying of pneumonia.

Dr. T. Hubbard, Toledo: I have an X-ray plate which somewhat explains how foreign bodies can get into the larynx of young infants. This is a six-weeks old baby, with a small open safety pin. It was located in the

posterior commissure, and was working down into the larynx.

There is another case I have in mind, of a fragment of hickory nut shell on the ventricle of the larynx, which by passing in pledgets of gauze and drawing up through the larynx finally released the hickory nut shell.

The following are abstracts of papers read at the fortieth annual Congress of the American Laryngological Association at Atlantic City, last May.

Report of Some Interesting Cases of Vincent's Angina.

By CLEMENT F. THEISEN, M. D., Albany.

There are two distinct clinical types of the disease, one form to be differentiated from diphtheria and other pseudo-membranous anginas occurring almost exclusively in young people, while the other form has a localized ulceration simulating syphilis occurring mainly in adults, usually, in the writer's experience associated with carious teeth, especially in those whose mouths are not well cared for.

The odor is distinctive and characteristic, and if not promptly treated, extensive ulceration of the fauces occurs with fatal ending.

The writer has had two fatal cases. One previously reported in 1912, and the other a recent case in a man thirty-two years of age. The uvula and part of the soft palate had been practically destroyed, and there was deep ulceration of both tonsillar surfaces and of the gums around the last molars. The ulcerated surfaces were covered with a tenacious pseudo-membrane. The molar teeth were badly decayed, and the gums bled easily when touched with a probe. The odor was so bad that it required a good deal of courage to examine him. He said the condition had been going on for several weeks, and he had received no treatment. He had been using a mouth wash of peroxid and water.

He was in an extremely weakened condition, because the pain in swallowing was so severe that he had not been able to take much nourishment. No history of syphilis could be obtained. Smears from throat swabs verified the diagnosis of Vincent's angina.

He was given a strong solution of potassium chlorate, powdered alum, carbolic acid, glycerin and water, to be used as a gargle, and locally the ulcerated surfaces after cleaning

were swabbed with a saturated solution of methylene blue in alcohol. He was given K. I. in large doses. This is always administered in the writer's cases, whether a history of syphilis is obtained or not. Blood count showed a moderate leucocytosis. He failed steadily in spite of all efforts, and died about two weeks after he was first seen. The larynx was not involved in this case.

Salvarsan was used both locally and intravenously without any appreciable effect. No autopsy.

Pure alcohol swabbed on the ulcerated surfaces is also extremely valuable. The greatest difficulty is in having the severe cases get enough nourishment, because the pain in swallowing is often so great. A solution of orthoform in olive oil, swabbed on the ulcerated surfaces before meals, affords a certain amount of relief. A spray of carbolic cocain in the worst cases gives more relief than anything else, if used a few minutes before meals. In some of the adult cases of the ulcerative type we are probably dealing with a combination of syphilis and Vincent's, even when we fail to obtain a history of syphilis. That may be one reason why salvarsan acts so promptly in some cases, although the consensus of opinion would seem to prove that the arsenic preparations do have a specific action. He has known cases of this kind in which there was a positive Wassermann (with no syphilitic history), with the typical clinical and microscopic evidence of Vincent's.

DISCUSSION.

DR. CHRISTIAN R. HOLMES, Cincinnati: I should like to ask as to the temperature of the patients; whether blood cultures were made in the two severe cases, and how he used the alcohol treatment—by applying it locally or not. In Camp Sherman we had quite a run of Vincent's angina in the soldiers; but none of them were seriously ill. All were the kind of cases that yield readily to treatment.

The treatment was nitrate of silver bead applied in the crypts, using it on a heavy silver wire, the patients using gargles of permanganate of potash and peroxid of hydrogen. Gargling with vinegar diluted with equal parts of water was tried lately and appeared very effective.

DR. LEWIS A. COFFIN, New York City: We have had many papers on this subject. From

these it is evident that patients have gotten well under various forms of treatment. It strikes me therefore that if these cases are seen early, recovery may be looked for, if any of the various methods be applied vigorously. The speaker referred to a case which he treated twice daily for about a week, when he told the patient that he was practically well and need not return for forty-eight hours. The same afternoon, after sitting out during a ball game, he was seized by a chill, which was the ushering in symptom of a typical attack of follicular tonsillitis.

COL. HERBERT S. BIRKETT, M. D., Montreal, Canada: Perhaps there is no condition which is more prevalent than Vincent's angina amongst British troops. I seldom saw it in any of the colonial troops, and this I think arises from the fact that the mouth conditions are very well cared for amongst the Canadians. The condition was found not only on the tonsils but also on the gums, even as far forward as the incisor teeth; it would seem as if this was due rather to direct infection. My experience with this condition is that it yielded rapidly to treatment consisting of an application of hydrogen peroxid, liquor arsenicalis and vin ipecac.

DR. EMIL MAYER, New York City: It is relatively easy to make a diagnosis of Vincent's angina when there is an exudate and you can make a smear; but I saw some days ago an instance in which the diagnosis comes to me as a very great surprise. This was in the case of a lady who took good care of her teeth, and was a woman of much refinement. She consulted me on account of a spasmodic cough. She had a skin affection for which she was being treated. I saw a simple mild exudate on her soft palate, which I felt to be an evidence of the skin infection on her mucous membrane. I felt that she had a similar condition on her trachea, because of the negative result of all of the examinations. Her sputum was really more saliva than anything else; and I was intensely surprised at the report that it was full of the fusiform bacilli. There was an absence of anything like a membrane, yet the condition occurred, and in a person not neglectful of her teeth or anything else; so it probably occurs much more frequently than we really have a right to expect in this class of cases.

The treatment that has answered best for

me has been the local application of salvarsan, together with the iodine and glycerin, which I recommended at the time the first case was reported by myself in the English literature. I have never seen the severe fatal cases. Arrow-smith reported a case in which the patient nearly died. I think that it behooves us to be on watch, because we may probably discover cases where we do not dream of them.

DR. GREENFIELD SLUDER, St. Louis: Dr. Theisen spoke of a solution of methylene blue in alcohol alone. I am glad to know that; but I have also used the methylene blue in powder and in aqueous solution, and likewise found it to answer the purpose.

DR. CLEMENT F. THEISEN, Albany, closing: Replying to Dr. Holmes' question regarding blood cultures, I would say that we did not take blood cultures, but we took blood counts; and the leukocytes in both cases were increased. I forgot to mention the increase in the polymorphonuclears, and also to mention a method of treatment—a combination of old drugs which is practically a specific, either as a gargle or in the spray form. This combination consists of potassium chlorate, powdered alum, glycerin and water. It works like a charm. The alcohol is used locally.

Report of Some cases, Mostly Traumatic, of Serious Damage to the Nose and Accessory Sinuses, Operated Upon Externally, With Excellent Cosmetic Results.

By John R. Winslow, M. D., Baltimore.

The writer reports a number of cases of operative cure after serious injury to the face:

1. Extensive traumatism of the nose, face and frontal sinuses due to a fall from height. Operative cure with exceptional result.

2. Frontal empyema with extensive bone necrosis and external fistula, operated upon externally in several sittings. Cure of condition with excellent cosmetic result.

Several interesting points were presented by this case:

- (a) Lack of intranasal pathologic conditions. A virulent infection (erysipelas?) seemed to have attacked the frontal sinus and uppermost portion of the bony framework of the nose without involvement of other nasal sinuses.

- (b) The posterior (cerebral) sinus wall was denuded, but was hard and seemed devitalized

rather than necrotic. It took a very long time for it to regenerate (twenty-six months), but his own judgment and the advice of colleagues was that it was better to delay than to assume the risk of removal.

(c) Marked anesthesia of the operative field, the packing being for a long time painless doubtless due to the devitalized bone.

(d) Excellent cosmetic results.

3. Fracture of the external bony framework of the nose and the nasal septum by the kick of a mule, causing depression of the tip of the nose and great disfiguration. Restoration of appearance and function by operation.

4. Fracture of the right nasal bone and nasal process and a portion of the orbital process, by an iron rod; formation of sequestra and abscess, with secondary infection of the right antrum. Operation and cure, with good cosmetic result. Photographs showing their excellent results were presented.

DISCUSSION.

DR. JOHN E. WINSLOW, Baltimore: I should like to hear from Dr. Coakley or some of the other experts, as to the proper plan of treatment under such conditions as I have described, where there is necrosis of the cerebral wall of the frontal sinus. How long are we justified in waiting for nature to attend to it? Did I wait too long, or was I too conservative?

DR. CORNELIUS COAKLEY, New York City: When I have operated on the frontal sinus I have never found actual necrosis of the wall unless there had been syphilis. It is unusual for me to find such a condition. What I have found is that in cases that have been operated on previously, there has been a temporary cessation of the discharge with fistula formation. When I have opened up the frontal sinus in these cases it has not been infrequent to find areas of very marked softening in the bone, such as one finds in a mastoid operation at the borders, when one has gotten back of where the large cells are and come to the cells just between these and the cancellous bone. I think that there is no reason why that bone should not be regarded as infected bone, just as in the mastoid region; and I feel that neglect to clean out this diseased bone and get down to healthy bone, whether in the anterior wall or anywhere else, is not good surgery. You should get to good bone, even if you expose the dura in the frontal region.

In one instance I found such a degree of softening of the posterior wall that I felt sure that I should find exposure of the dura and epidural abscess. Fortunately, however, that was not the case. I went through an area of three-eighths of an inch of vascular soft bone before coming to what must have been a very thin area of good bone at the posterior wall of the frontal sinus. The soft bone was all cleared out. A drain was placed in the wound for a short time, leading to the nose. The wound was sewed up, as in the ordinary Kilian operation, and the patient has made—temporarily at least—a good recovery. The operation was done three months ago, and up to the present time there has been no recurrence, although there were two or three before that. Soft or diseased bone, or any other bad bone in the frontal sinus, should be treated just as you are in the habit of treating the same kind of bone in the mastoid or any other region.

DR. LEWIS A. COFFIN, New York City: I should be much less afraid of a curette than of leaving diseased bone in a patient. As to whether the posterior wall being necrotic and perforated is an invariable sign of syphilis, I have grave doubts. I have seen this condition in comparatively few cases; one case was in a child of six years having perfectly healthy parents. In reporting that case I spoke of another that I had previously seen in which the anterior wall was so soft that I removed it with a spoon curette and stated that I did not see why the posterior wall should not be affected by the same pathologic process as the anterior wall. A case somewhat similar to the one just reported comes to mind. A young woman was riding in an automobile when the peculiar accident happened. The shaft of a wagon to which a horse was attached entered the antrum through the middle of her cheek, fracturing the floor of the orbit and the anteronasal wall. She had been under treatment for some time when I saw her. Removing a pad of gauze from her face revealed a stream of pus pouring from the open wound in her cheek. I made an incision over the eyebrow down over the ridge of the nose and the center of the skin covering the columnar cartilage and dividing the upper lip in the median line. Turning the flap well back gave a good exposure of all the diseased parts, which were thoroughly cleared out. We and our patients

are fortunate in the kindly way in which incisions of the face heal. In this case there was practically no scarring except where the shaft of the wagon pierced the cheek.

DR. GEORGE L. RICHARDS, Fall River, Mass.: The ability of the face to heal is very remarkable. I recall that some years ago I had a patient who was riding a bicycle down a hillside when the chain broke, and he was pitched suddenly forward in such a way that he tore off the front of the face from the nose to the chin, and in addition got all the dirt of the street into his wounds. A number of operations were necessary but in the end a fairly good looking face resulted.

DR. T. PASSMORE BEREN: New York City. It seems to me that this is the same condition that we find in the mastoid of bone that is not syphilitic but is simply an unusually firm hard bone. We have to be patient, and let it heal. A number of years ago I mentioned the mild pressure that was needed in these cases, such as would come from a pince nez with long horns pressing the nasal bones together. It seems to me that if he had exerted a slight constant pressure, such as you get from a pince nez, he would have overcome that broadening of the nose. I merely mention this to accentuate the benefit of constant mild pressure.

DR. BRYSON DELAVAN, New York City: In suppurative conditions of the nasal sinuses if there should be any question of the existence of syphilis, operative work must be undertaken with caution, since under antisiphilitic treatment many cases have been cured or have satisfactorily improved without operative interference. Many cases could be quoted to prove this. It may be said, therefore, that where there is a positive Wassermann reaction wait, if possible, until a course of specific treatment has either cured the sinus disease or made the necessity for operation clear.

DR. JOHN R. WINSLOW, Baltimore, closing: I do not want to leave anyone under the impression that I am ignorant enough to leave soft bone and close it in the wound. It was not soft, but hard as steel, and I curetted three times as much as I thought was safe. I acted not only on my own best judgment, but also on the advice of several friends.

Carpet Tack in the Right Bronchial Tube of Patient for Two Years With No Pathologic Symptoms; Exhibition of Plates.

By Dunbar Roy, M. D., Atlanta.

This occurred in a female aged twenty-eight years. X-ray showed the tack in the right bronchus between the seventh and eighth ribs. Its removal was at once attempted by upper bronchoscopy and failed. Tracheotomy was performed the next day, the bronchoscope passed, but he was unable to grasp and dislodge the tack, and the tracheotomy wound allowed to heal.

Five months later a bronchoscope was easily introduced by upper bronchoscopy by Dr. R. C. Lynch. The tube was too short and the foreign body could not be removed.

The patient has been entirely well since then, now two years, increasing in weight. X-ray photographs were shown showing the tack still in situ.

The writer presented records of a number of cases of this character, many of them without producing untoward symptoms.

DISCUSSION.

DR. T. H. HALSTED, Syracuse: In connection with this case of Dr. Roy's, I should like to report the recent removal of a foreign body from the right bronchus occurring in a girl of ten years. This child while playing, having occasion to put her pocket handkerchief to her mouth, inhaled a metal clip, shaped somewhat like a fish hook, which had been in her pocket. There was an immediate attack of dyspnea, lasting a few moments, but within a few minutes no symptoms beyond a sensation as of something sharp lodged in the throat remained. A physician saw her within ten minutes, at which time all symptoms had disappeared, beyond the pricking sensation. He assured her that she must either have expectorated or swallowed it. She had no trouble that night, but the next morning, the sticking sensation referred to the neck continuing, she consulted another physician, Dr. Swift, who had an X-ray made. This disclosed a foreign body in the right bronchus. She was referred to me for operation. Under general anesthesia I soon located the metallic object by upper bronchoscopy and made repeated but unsuccessful efforts at removal. The X-ray failed to tell whether the sharp point was directed up or down, and it could not be determined by direct inspection.

The next morning stereoscopic plates were made, and showed the foreign body to be in the right bronchus, sharp point upwards. Under ether, the trachea was opened, and under lower bronchoscopy the foreign body was, after two hours' work, removed. It was in the second division of the bronchus, firmly wedged, but by manipulation it was finally removed by a long alligator forceps with but little damage to the bronchioles. It was a flexible steel clip used in clothing stores for holding cardboard price marks, shaped like a sharply bent fish hook, the shaft being three-fourths of an inch long and the pin portion half an inch. It, together with the stereoscopic plates, are presented for examination. The tracheal wound was at once closed, the child made an uneventful recovery, leaving the hospital in eight days. It was the most difficult case of its kind I have met with.

Concerning Atrophic Rhinitis and Ozena; With Report of Case Referred To Last Year.

By LEWIS A. COFFIN, M. D., New York City.

The speaker believes he was the first to suggest that the foul odor which so frequently accompanies atrophic rhinitis and constitutes the disease known as ozena has its origin and is caused by a chronically diseased and poorly drained antrum. Since making this statement others have reported to him that they had treated several cases in this manner with the same excellent results.

In one of his cases there was no improvement whatever, although operations had been performed on both antra.

He was unable to account for the failure in this instance.

DISCUSSION.

DR. CORNELIUS G. COAKLEY: It seems to me that all the odor should not be attributed to disease of the maxillary sinus. If the patient had pansinusitis I do not see why it should be cured by washing out the maxillary and leaving the same pathologic process in the ethmoid and frontal. Of course you do not get so much odor from them, but I should think you should clear them up as well as the maxillary, and I suggest that as the cause of the continuation of the odor.

DR. GEORGE L. RICHARDS, Fall River: I have had good luck in using the chlorinated oil in the type of case that Dr. Coffin has been speak-

ing of. It is purely empirical. I used it thinking that it would do some good to place it on the surface and hold it there. It was done with the swab or spray, and not after opening the antrum. I have not been converted to the belief that all or even the majority of cases of atrophic rhinitis are due to antrum disease.

DR. THOMAS H. HALSTED, Syracuse: After seeing Dr. Coffin's cases last year, I treated a case with the foulest odor I ever encountered. I did a double antrum (simple Mikulicz) operation on her. The odor was simply unbearable and unendurable. Nothing further was done. The saline douche that she was using was kept up. I did not see her, after she went home, for a year. Then the odor had entirely disappeared. There was no odor from the nose whatever, and no other treatment had been carried out during this time but the washing out. In three of five other cases there was absolutely complete cessation of all odor. It was one of the most satisfactory operations of any that I have done. Of three of my five cases, the odor, which was very bad, was entirely relieved by the antrum operation; in the other two it was greatly lessened. There was a marked diminution in the amount of crusting in the nose. The odor comes, I am satisfied, more from the gas from the antral secretion than from the nasal scabs, though doubtless some comes also from the other sinuses, the frontal, ethmoid and sphenoid, when they are involved, and their treatment, by ventilation through operation, will be required in such cases.

DR. HENRY L. SWAIN, New Haven: What did you find in the maxillary sinus?

DR. THOMAS H. HALSTED, Syracuse: Nothing much; the operation was done by simply opening through the nose. I was not able to see as you would with a Caldwell-Luc. I made a good big opening through the nose and got ventilation and prevented the retention of secretion and pus.

DR. SWAIN, New Haven: Did the X-ray show anything in the antrum before operating.

DR. HALSTED, Syracuse: There was no X-ray made.

DR. SWAIN, New Haven: Did the transillumination?

DR. HALSTED, Syracuse: Yes, and I did one of these operations recently in a nurse where the transillumination was clear.

DR. SWAIN, New Haven: You operated in spite of that?

DR. HALSTED, Syracuse: Yes.

DR. GREENFIELD SLUDER, St. Louis: The point that I should like to make is that if Dr. Coffin has established the opening of the antrum for the cure of ozena and the stench of an atrophic rhinitis, it seems to me that it is one of the greatest advances presented to us for a long time. Last year I asked the question, which was not answered, "What happens in a case of atrophic rhinitis when the olfactory fissure is crusted all around?" There is an antrum open, but the atrophic process is as active and destructive there as elsewhere.

DR. HENRY L. SWAIN, New Haven: In speaking to Dr. Sluder's remarks, I was endeavoring to bring out the proposition that Dr. Coffin has brought before us, because he will be accused of saying that he cures atrophic rhinitis by opening the antrum. He does not cure the rhinitis, but does cure the odor, as Dr. Sluder says. As I said at the last meeting, it was a most radical remark on Dr. Coffin's part, and if it bore truth as promised, it was really an epoch-making suggestion, and I rise to confirm Dr. Sluder.

DR. GREENFIELD SLUDER, St. Louis: I forgot to state that I am going to try it when I get home.

DR. HANAU W. LOEB, St. Louis: It is obvious that if there is any process of this nature in the antrum, by securing good drainage there will naturally be improvement in the odor, just as I have found that by clearing out the ethmoids a particular odor that may accompany the process will improve or disappear. I feel that Dr. Coffin's contribution in this respect constitutes simply calling attention to the fact that the antrum being the largest cavity connected with the nose and most intimately associated with its function, the greatest opportunity for the development of these crusts is offered by it whenever it is subjected to the action of the putrefactive bacteria. I do not see why it should be affected in all the cases, or even in more than a fair number of the cases, because, according to my information and observation, the antrum is not more often affected than other sinuses.

DR. HENRY L. SWAIN, New Haven: If the people will take enough pains to cleanse the nose properly most of them can remain in-

offensive to their immediate environment. That would not be the case if the odor depended entirely on the condition of the interior of the antrum. So, although I am particularly friendly to Dr. Coffin's suggestion, I am sure that we are not going to cure all cases by opening the antrum, because all cases are not due to that. We are not saying that he does not do it, but we hope to do equally good work. In an antrum where I could see in pretty well through a large natural opening between the antrum and the nose, where there was an atrophic process in the nose, we could see in the antrum that the mucous membrane lining the antrum had the same process going on in it as in the nose. That is, there were masses of atrophic material lining the entire cavity of the antrum. If that could exist once, it could many times, and that explains why in some of these cases in which, as Dr. Halstead discovered, where there is no darkness under transillumination, there will be going on the same process as in the nose, which can be relieved by opening the sinus, and only by doing so.

DR. T. HALSTED, Syracuse: In three of my cases the odor was extreme. In the other two, the odor is much relieved. It is simply remarkable what improvement has taken place. I can only say in a general way that there was a diminution in the amount of crusting. I do not believe that all the odor comes from the crusting. I believe that it will be proved that it is from the maxillary sinus as well as the ethmoid and frontal.

DR. GREENFIELD SLUDER, St. Louis: If the author can locate the antrum as the point from which the stench proceeds, that is the most valuable contribution that we have had for a long time.

DR. L. A. COFFIN, New York City, closing: Dr. Sluder has given a perfectly proper definition of ozena as "the odor accompanying atrophic rhinitis." Then he talks of seeing scabs about the olfactory fissure—but does not state that there is any odor or ozena from these particular scabs. We are not discussing scabs but an odor known as ozena.

Dr. Coakley asks why the antrum rather than the other sinuses? The antrum is practically the only sinus I have ever opened from which was emitted a foul odor. This occurs frequently and is due to the anatomic structure of the antrum. Drainage is at the top, while

in most other sinuses drainage is from the bottom.

The case of a young lady comes to mind. She had extreme atrophy, no inferior or middle turbinates in sight, nose much bescabbed, and when she first came emitting a foul and stinking odor. Her antra having been opened and cleansed, the odor (ozena) has entirely disappeared, while undoubted disease of many of the other sinuses persists, as does scabbing, although not to the same degree as before the treatment of the antra.

She was one of the cases seen by Dr. Halsted. Another was a young boy about twelve years of age. Apparently he had not only marked disease of the antrum of one side but marked ethmoiditis as well—nose full of crusts and ozena. I opened and treated the antrum, purposely leaving the ethmoids untouched. The odor disappeared.

As to the value of the X-ray in diagnosis: It is a help, by no means infallible. Personally, I care little for another's reading of the negative. Now, these are the thoughts which I wish to impress and leave you: First, that the odor of ozena comes frequently from disease of the antrum, and is relieved by the treatment of the antrum. Second, please remember that I have today reported a case not so relieved.

I trust that you will all try the treatment, as has Dr. Halsted, and that you will bear in mind that we do not expect 100 per cent perfect in 100 per cent of the cases.

Three Unusual Nasal (Sphenopalatine) Ganglion Cases.

By GREENFIELD SLUDER, M. D., St. Louis.

The usual neuralgic picture is pain in and about the eyes and the upper jaw, the teeth, extending backward about the temple under the zygoma into the ear, making earache; and then backward into the mastoid; and severest usually at a point two inches back of the mastoid, to extend into the occiput, the neck, the shoulder; into the shoulder blade and sometimes the axilla and breast and frequently down into the arm, forearm hand and even to the finger tips.

Added to this symptom complex, frequently is found a sneezing and watery secretion more marked probably in the morning, frequently extending through the day; a red external nose,

with tearing eyes, photophobia, and a sense of discomfort in the eyes difficult for the patient to describe.

Occasionally, however, are added unusual features to this clinical complex. These cases record phenomena that at present are unique and cannot be explained. They may be recorded as facts.

The first case was relieved of the dizziness and the headache after cocainization of the ganglion, the headaches returning in six hours. The patient passed from further observation.

In the second case headache ceased, but as an effect of cocainization the right eyelid drooped very perceptibly to obscure probably half of the blepharospasm, and the pupil contracted to one-half of its fellow of the opposite side.

The third case was one of a right sided blepharospasm of great severity, and was a post ethmoid sphenoid suppuration with polyps on the right side.

Cocainization of the right nasal ganglion relieved the blepharospasm for a period of three hours, and injection of the same ganglion was followed by relief of the spasm for three to six hours.

Operating on the ethmoids and sphenoids did not relieve the spasm.

The left side was then operated upon without relieving the spasm, although the right eyelid opened after injection of the left ganglion.

DISCUSSION.

DR. EMIL MAYER, New York City: We are much indebted to Dr. Sluder for calling attention to these nasal ganglion cases and what may be done for them. I recall the case of a young woman whom I had successfully treated for dysmenorrhea by intranasal treatment. She came to me later, suffering with headache, and I cocainized the nasal ganglion on the side that she had her headache. An hour afterward she telephoned to say that her headache had completely ceased. She was so rejoiced that she felt that she must let me know at once how much better she was. She remained well for some months and then had a recurrence. She came again and had an application made to the ganglion on that side, and it has remained well ever since. Though I cannot explain why we can get such wonderful results in dysmenorrhea cases by a treatment which must perforce be called empiric, some of us may at some

time be able to understand and explain it. The word empiricism must apply in this instance, as in the other instance of Dr. Coffin's, where we are unable to give a true scientific reason for the things that we do. The result is there, and the patient is happy, and that is all that can be said.

DR. HENRY L. SWAIN, New Haven: I have tried to cocainize the ganglion neuralgic cases, and I want to confirm the speaker in what he has observed on the question of dizziness, which I have been unable to explain any more than he has. One of the cases that I cocainized for headache also suffered from vertigo, and it was relieved entirely during the period of her cessation from pain, which was only two or three weeks. I made another application of adrenalin and cocain in combination, and she was relieved for so long that she did not think it necessary to have any further treatment of that kind. That was a year ago. I have not seen her since, and do not know whether she is still well or not.

The question of why we have pain in these sinus cases is most interesting. I have had a number of cases of severe pain with disease which I thought was well and have had an X-ray picture taken to learn the exact state of things. The neuralgia has ceased in five instances immediately after taking the picture, so there must have been something in the exposure to the X-ray that broke up the nerve complex in some way and caused the pain to stop on the spot. Previously I had been treating the case without seeming relief. Immediately after taking the picture the pain stopped. This occurred in several instances in persons that I saw every day, the pain ceasing thereafter entirely. The question arises, Could this fact be put to some therapeutic use, and be of some therapeutic value? Shall we expose patients with this type of neuralgia to the X-ray to cure them? That question I leave to you to answer, but I do not think this occurrence was accidental in all five cases in which there was no sinus disease but neuralgia and in which following the X-ray exposure the pain disappeared entirely.

DR. GREENFIELD SLUDER, St. Louis, closing: The case that Dr. Mayer has described was, I fancy, one of those in which the ganglion lies particularly close to the surface. That sometimes happens, and such a case may be explod-

ed into the most violent lower-half headache by an ordinary coryza. Cocainization, in that case, is curative, not palliative merely.

Dr. Swain's observation that an X-ray relieved headache is exceedingly interesting.

(To be continued).

Correspondence.

Treatment of Pneumonia.

January 30, 1919.

To the Editor:

I read with interest a letter in the December issue, from Dr. H. U. Stephenson, of Toano, Va., on the treatment of Influenza Pneumonias with Vaccines. I am sure the profession at large would appreciate very much another and more complete report, with regard to this vaccine treatment, the dosage, his method of administration, etc.

A READER.

Analyses, Selections, Etc.

Pulmonary And Pleural Annular Radiographic Shadows.

With a wealth of illustrations to support their thesis, Sampson, Heise and Brown of the Trudeau Sanatorium publish a noteworthy article on "silent" or unrecognizable cavities in the lungs that are detected by X-ray. The authors prove rather conclusively that many of these "cavities" are not intrapulmonary, but are interpleural and situated between the lobes of the lungs or between the lungs and the chest wall. In other words they are likely to be interlobar pneumothoraces or hydropneumothoraces, or localized pneumothorax. Annular shadows, cast upon the X-ray plate, in a large part of these pathological formations, were noted 50 times in 423 consecutive cases admitted to the Trudeau Sanatorium. This would be 11.8 per cent. of admissions. The authors conclude that these annular shadows occur in patients more likely to be suffering from pulmonary softening, and that they indicate rupture of the lung. Because of adhesions only partial pneumothorax, with or without fluid, results. The pneumothorax usually occurs in the upper part of the greater oblique fissure and in the horizontal fissure on the right. It can rarely be diagnosed clinically and indicates a somewhat graver prognosis. (*Review of Tuberculosis*, 1919, Vol. 2, No. 11.)

The Fasting Treatment Of Diabetes Complicating Pulmonary Tuberculosis.

Landis, Funk and Montgomery of Philadelphia report the results obtained after treating by the Allen fasting method twelve diabetics who were at the same time suffering from tuberculosis. They found no evidence that the dietary restriction exercised an unfavorable influence on the tuberculosis. They found that it is possible for patients with tuberculosis and diabetes to partake of a considerably restricted diet over a period of some weeks and still show an increase in weight and strength, a fall in temperature and a lessening of respiratory symptoms. Other things being equal, they feel that prompt treatment of the diabetes according to the method of Allen, offers the tuberculosis patient the best chance in the ultimate effort to control the tuberculosis. They include a number of detailed case histories and diet, temperature and hemorrhage charts of one patient. The treatment is applicable in the presence of recurring hemoptysis, and in every case of tuberculosis of the lungs unless the patient is obviously hopelessly ill with the pulmonary lesion, in which case the institution of the autodiabetic treatment would add only further discomfort. (*Review of Tuberculosis*, 1919, Vol. 2, No. 11.)

Editorial.

PRESENT OBSTETRICS IN VIRGINIA.

With twenty-five per cent of the physicians of Virginia in the service of their country, and with the remainder overworked as a result, it would be difficult even in normal times, for all of the people to secure the usual medical care. Add to this scarcity the terribly urgent needs produced by the influenza pandemic, and we have a situation in many communities of the State truly appalling.

In handling the nearly ten thousand certificates of deaths for October 1918, as State Registrar, nothing impresses me more forcibly than the suffering, anguish, and death portrayed in these certificates, due to lack of obstetric care at a time, when as never before, such care, or the lack of it, meant life or death for mother and child.

One physician on a birth certificate, made the note that that was the only case he knew of, where mother and child survived when

the labor was hastened or accompanied by an attack of influenza. Others of the large number of women who miscarried or were delivered prematurely and at term during the disease, doubtless recovered with efficient treatment. What however can be said as to the suffering even to death of the many unfortunate women whose only dependence was the ignorant and helpless midwife! Even if we had sufficient trained helpers in our office, with the time to study the influenza-obstetric situation, the information on the certificates themselves is too incomplete and inaccurate to be of great value, and the full result will not be known.

We need not however contemplate the recent unprecedented conditions to realize that the obstetric situation in Virginia is bad. Even in pre-war times, two-fifths of the births were cared for by midwives, and the number during the past year has doubtless been greater, though that fact has not yet been determined.

Those who have been much thrown with our midwives, mostly colored, know that they are not only untaught, but that they possess a degree of confidence in themselves, bred only by ignorance of their ignorance. Mimicking physicians, they unhesitatingly make numerous digital examinations without any attempt at cleanliness or sterilization of their hands or the patient. Trusting to nature which they have usually seen bring their patients through in comparative safety, they will allow them to linger on in active labor for two or three days, if they survive that long, with a transverse or other difficult presentation requiring skilful interference. I estimate that these nine thousand midwives are each year responsible for at least one hundred deaths of women, and possibly if the whole were known, twice that number, from infection and neglect.

The unnecessary deaths of infants is even larger, these going to swell the total of 3000 still births thus reported. If a child in breech presentation survives in the practice of a midwife, the uterine action must be unusually rapid and vigorous, and the parts in good condition for a speedy delivery of the head. Who ever heard of a midwife making any effort at resuscitation, if the infant is not able to care for itself by the speedy inflation of its lungs? Any physician can readily recall the lives which he has saved by timely effort.

It is our regret that the death certificates,

even when they give the bare statement of child-birth, or when we discover that fact from the corresponding birth certificate, do not tell us of the number who die from placenta praevia, post-partum hemorrhage, or puerperal eclampsia.

The local registrar thinks he has performed his full duty when he notes "no doctor" in the place of the cause of death. Physicians can aid in this particular by giving certificates when the facts are known, and by making it clear that the death followed the midwife's attentions, even though the doctor was afterwards called, when too late.

The remedy for this situation is three-fold:

1. The efficient training of medical students in this important branch of practice and inspiring them with the importance from a humanitarian standpoint of never refusing a call for aid in an obstetric emergency. The fact that the fees are inadequate should not stand in the way. Young physicians by aiding the poor acquire the experience, skill and reputation that will demand remuneration from those more able to pay.

Women should be taught to engage the physician as soon as they suspect or discover their condition. Then he should give them watchful care till they are finally dismissed with their infants in their arms.

2. Physicians should bear in mind that the Bureau of Vital Statistics is, as far as possible, carrying on a propaganda of instruction to the public, in training the people from the midwife to the doctor. We must however have the co-operation of the physician, and have him demonstrate that his services are worth more than those of the granny.

3. Until the day has passed when the midwife is no longer a necessity for the poor, we should do what we can to instruct her in the fundamentals of her work, as follows:

- a. Teach her the necessity for, and the methods of cleanliness. Encourage her to purchase and use for herself and the mother a good biniodide or mercury soap, both for its cleansing and antiseptic effects. This soap is now being offered to the midwives as well as the physicians by one of the large drug firms.

- b. Impress upon her absolute abstinence from all vaginal examinations. She simply infects the patient and learns little or nothing.

- c. Enjoin upon her never to permit a woman

to continue over 24 hours in labor without calling in a physician.

- d. She should be taught the symptoms which precede eclampsia, such as swelling, headache, sub-sternal pains, and above all any interference with vision, and be urged to send for a physician.

- e. She should understand the significance of hemorrhage before the beginning or completion of labor and the method of expressing blood-clots and producing uterine contraction in postpartum hemorrhage.

- f. She should know of the danger to the child from infection of the cord with grease and dirty dressings. Numerous deaths thus occur from convulsions or infection.

- g. Make her familiar with the importance and method of using the eye-prophylactic now furnished through the Bureau of Vital Statistics.

- h. The necessity is urgent for reporting the birth within ten days and answering every question, when alone with a case, and for leaving it to the doctor when he is called to help her.

These and some other essentials have been placed before these women in a little booklet, "Help for Midwives," and in a set of rules on the back of the permit which midwives are now required to procure from local registrars before they can practice for pay.

If by this co-operation of physicians and Health Department in teaching midwives, one life can be saved in each county and city a year, over one hundred will be the total result for the State.

Surely this is worth the effort.

W. A. PLECKER, *State Registrar.*

The Noxious Streptococcus In Man.*

The virulence of this vegetable microorganism in some of its types in the human body, has been emphasized in a tragic manner by the high mortality in the last few months from respiratory disease. Some one has said that the streptococcus causes sixty per cent of the infections in which bacteria can be grown from the blood. The pathogenesis of streptococcus in man must be one which interests every physician and surgeon. Much of the physician's and surgeon's work is connected with the pathology of the body resulting from lesions and poisonous processes of the streptococcus.

*(Read, Davis, J. A. M. A., February 1st, 1919, pg. 319).

After Schottmuller's classification of streptococci into *S. Viridans*, *S. Hemolyticus* and *S. Mucosus*, and Holman's subdivision of streptococcus hemolyticus into eight varieties according to their fermentative reactions, and after it has been shown that not all of these are pathogenic in man, one realizes what an extensive subject he is dealing with bacteriologically. Our present interest centers about that group termed pathogenic hemolytic streptococci including several varieties. They are morphologically spherical or slightly oval, in chains, quite long, and, when multiplying in tissue rapidly, are in pairs or short chains. Their reaction in sugar determines their classification.

Some animals, as the guinea pig, the rat, and the bird are more or less immune to the streptococcus while man, the horse, the cow, the mouse and the rabbit are susceptible to and pathologically affected by streptococcus infection. Immunity is difficult to acquire in the light of present knowledge and, if acquired, is of short duration.

In man this organism is found more or less constantly in the tonsils. In the crypts of the tonsils is found the common habitat of the hemolytic streptococcus: in the throat they are also found; in the nose they are rarely found; from infected sinuses they may be obtained. In the pharynx of normal persons, they are found in 50 to 60 per cent but without inflammation, only in small numbers. It has been suggested that the tonsil crypts are the normal habitat and that the pharyngeal mucosa is but the ranging ground. Infected teeth is another secondary depot for the propagation of the bacterium which is so noxious to man. Neither the skin nor the stomach and intestines of man are favorite locations for the implantation and propagation of streptococci. Hemolytic streptococci are very sensitive to the hydrochloric acid of the stomach and they will live in the intestinal contents only for a few days. From places of primary habitation, the streptococci set up a secondary infection in many general and local infections. Sinusitis, mastoiditis, antrum infection, oral infections, single or general arthritis, endocarditis, appendicitis, colangeitis and respiratory infection (pneumonitis and pleuritis,) are a group of diseases this organism produces in man.

ALEX. G. BROWN, JR.

News Of M. C. Officers.

Major A. Barnes Hooe, Washington, D. C., is now in France.

Lt. Col. Stuart McGuire, of this city, who has been in charge of Base Hospital No 45, is expected to return to this country the latter part of February.

Capt. Paul V. Anderson, who was also connected with Base Hospital No. 45, has returned to this country and resumed his work at Westbrook Sanatorium, this city, after a short visit to relatives in Wilson, N. C.

Major W. A. Harris, Spotsylvania, Va., is still on duty with the medical corps in France.

Capt. Otis T. Amory, Newport News, has been stationed at Camp Stuart Debarkation Hospital since January 1918, acting as assistant chief of surgical service at that port.

Dr. J. B. Lacy, of Nathalie, Va., has recently returned from service at Ft. Oglethorpe, Ga.

Major C. C. Coleman, of this city, is now on duty at U. S. General Hospital No. 11, Cape May, N. J.

Dr. William F. Williamson, formerly stationed at Camp Pike, Ark., as assistant regimental surgeon, has been honorably discharged from the service, and has resumed his work in this city.

Major Blanton L. Hillsman has returned to his home in this city, after being released from military service. He was in charge of Mobile Field Hospital No. 7, first on duty behind the marines in the Champagne sector.

Dr. J. H. Moore, Pardee, Va., has just returned from the army and has taken up work with the Blackwood Coal and Coke Company.

Dr. Garland M. Harwood sailed from France for this country the latter part of January. He had been in France since July 1917, having gone over with the Johns Hopkins University medical unit, from which school he graduated.

Capt. William D. Scott, of Curtis Bay, Baltimore, a native of Fredericksburg, Va., who has been overseas since last spring, has been promoted to the position of commanding officer of field hospital No. 320, Three Hundred and Fiftieth Sanitary Train.

Dr. B. Bates McCluer, formerly connected with the British Hospital Corps in France, but more recently located at Camp Devens, Mass., recently visited his family in Bon Air, Va.

Lt. Aubrey H. Straus, adjunct professor of

bacteriology at the Medical College of Virginia, has arrived at Camp Dix after fifteen months of service in France. While over there, Lt. Straus did special laboratory work in connection with meningitis and diphtheria.

Campaign Against Venereal Diseases.

The Norfolk Health Department announces that they have inaugurated and are maintaining an intensive campaign against venereal diseases in that city. They have opened a daily venereal clinic, which is now operated jointly by the U. S. Public Health Service and the Norfolk Health Department; they have a venereal hospital and are building another, and are about to open two large buildings for a detention home for women of this class.

The clinic is operated by a specialist, assisted by a trained female and a trained male nurse. About 2,800 cases had been treated from last June to the first of this year. All classes of venereal diseases are treated, Wassermanns are made, salvarsan given in sufficient doses, and repeated as often as necessary in all cases demanding it. The Police Department assists in apprehending all persons of ill fame. After being arrested, they are examined, and, if found infected, are held in quarantine for treatment.

Warwick County (Va.) Medical Society.

At the annual meeting of this Society, Dr. William F. Cooper, Newport News, was elected president, and Dr. D. W. Draper, also of Newport News, was re-elected secretary.

Full-Time Health Officer In Fairfax County.

Dr. E. L. Flanagan, who, with the rank of captain, has been on duty at Camp Travis, San Antonio, Texas, was released from service the latter part of January, that he might take up his duties as full-time health officer in Fairfax County, Virginia. Fairfax County has appropriated \$4,000, and the State Board of Health and International Health Board \$2,000 each, for the year, in order to conduct a special health campaign in that county.

The Annual Report Of The Surgeon General, U. S. Army

For 1918 has been issued, and includes statistics for the calendar year 1917 and activities for the fiscal year ending June 30, 1918. It contains a comparative study of the health of the Army, 1820-1917; an account of the health of the mobilization camps and of the

Army countries; a consideration (70 pages in extent) of the principal epidemics in the camps, and a discussion of fractures and operations. Nearly 200 pages are devoted to the special activities of the medical department—with the American Expeditionary Forces, and in the divisions of sanitation, hospitals, supplies, laboratories and infectious diseases, internal medicine, general surgery, orthopedics, head surgery, neurology and psychiatry, psychology, food and the Dental and Veterinary corps.

In addition to the usual tables of illness, discharge for disability and death, there are given tables of battle wounds and operations; of complications of various diseases and of case mortality. The text is illustrated by 73 charts. Altogether the report is a study of health and morbidity in an Army of over 1,500,000 men, for the most part yet in the period of training. It should be of interest to epidemiologists, vital statisticians and army medical men.

Dr. and Mrs. Will J. Knight,

Newport News, Va., after a short visit in this city, left last month for a stay of two months in Florida.

Dr. Clyde F. Ross,

Formerly of Anderson, S. C., but recently captain in the medical corps of the army and chief of the genito-urinary service of the Base Hospital at Camp Greene, has located in this city, with offices in the Professional Building. His practice will be limited to the practice of genito-urinary diseases.

Dr. Ross graduated in medicine from the former University College of Medicine, in this city, and his friends in this section are glad to welcome him here again.

Dr. Beverley R. Tucker

Was elected a member of the board of managers of the University Club of this city, at its annual meeting, February 12.

Major Allen W. Freeman, M. C.,

Health commissioner of Ohio, who has recently been discharged from service in the medical corps of the army, has been visiting relatives in this city. Dr. Freeman was formerly assistant health commissioner of Virginia.

The Guilford County (N. C.) Medical Society,

At its annual meeting early last month, elected the following as officers for the ensuing year; President, Dr. John T. J. Battle; vice-

president, Dr. Albert R. Wilson; secretary-treasurer, Dr. Robt. A. Schoonover. All are of Greensboro.

Hospital For Blinded Soldiers, Sailors And Marines.

"Evergreen", located in Guilford, one of the beautiful suburbs of Baltimore, is the place to which are sent soldiers, sailors and marines who have lost their sight as a result of the world war. To overcome the despair of this class, everything is done to teach the blind men "how to be blind" and that, though blind, they are still normal men. Entertainment, such as dancing, music and amateur theatricals, are provided for them in their free time. The handwork taught embraces weaving, basketry, netting, chair caning, carpentry, typewriting, etc., and the elementary branches in English are also given. This training costs the men nothing and they continue to be known as soldiers until they leave the hospital.

Antivenereal Disease News.

Public Health Reports announces that the U. S. Public Health Service, Division of Venereal Disease, is conducting approximately 175 clinics. During the period from November 15 to December 15, 1918, there was a total of 19,456 visits to 29 clinics, or an average daily attendance of 38.1 at each clinic. There were 2,489 new cases, which was an increase of 188 cases over the number of admissions of the preceding month. A total of 25,543 treatments were administered and 11,195 cases were remaining under treatment in the clinics, hospitals, and detention homes on December 15. As a result of 1,845 "follow-up visits" made by the clinic nurses and social workers, there were 1,070 visits to the clinics.

Minnesota has shown good results in her clinics. It is claimed that this is due to extensive social-service work, which involves following up by correspondence as well as by investigation. It has been possible to secure the adherence of incorrigible cases to a routine of precautions, so as to protect others from infection.

Many thousands of letters requesting pamphlets and expressing a desire to assist in the conflict against venereal disease have been received from various States. Twenty thousand druggists have pledged themselves to refrain from selling nostrums for the treatment of

venereal disease. Five thousand pledges not to publish advertisements of quack doctors have been received from newspapers.

The Southern Section of the American Laryngological, Rhinological and Otological Society

Will meet in Richmond on the first day of March. Dr. Clifton M. Miller of this city, is Chairman of this Section and will give any information desired. A number of distinguished men from various parts of the country are expected to attend and the program promises to be a most attractive one.

Dr. J. Fulmer Bright,

Formerly commanding officer of the Richmond Grays, later a part of the 116th United States Infantry, has been appointed major in the Medical Corps, Virginia National Guard. Major Bright is one of the best known military men in the State, having been in almost continuous service since January 1907.

Dr. William R. Laird,

Who has for several years been surgeon at the Sheltering Arms Hospital, Hansford, W. Va., is now connected with the Chesapeake and Ohio Hospital, at Clifton Forge, Va.

Dr. C. Howard Lewis,

Of this city, has been reappointed surgeon of Fitz Lee Camp No. 1, United Spanish War Veterans.

Dr. William H. Parker,

Of this city, with several friends, enjoyed a trip to New York last month.

Dr. W. Brownley Foster,

Chief Health Officer of Roanoke, Va., was a recent visitor at his former home in this city.

Dr. Roy K. Flannagan,

Of the International Health Board, affiliated with the State Board of Health, inaugurated a campaign against tuberculosis in Danville, Va., the latter part of January. The Virginia Anti-Tuberculosis Association is assisting in this work.

Dr. Basil D. Spalding,

Of Aberdeen, Md., has been visiting in this city.

Honor Memory Of Dr. Walter Reed.

A bronze tablet, as a memorial to the late Major Walter Reed, U. S. A. medical corps.

was unveiled at the Walter Reed High School, Newport News, Va., January 24. The tablet was erected by the Newport News Medical Society.

Married—

Dr. Hartwell Graham Stoneham, Waverly, Va., and Miss Helen Derrickson, Norfolk Va., in Roanoke, recently.

Dr. L. Beverly Chaney, Richmond, and Miss Ellen Douglass Somerville, Rapidan, Va., February 9.

Outbreak of Typhus Fever in Russia.

There are approximately 25,000 cases of typhus in three Russian cities and Russian and American Red Cross authorities are doing their best to check the disease. In view of the overcrowded conditions in all cities and towns, their task is a desperate one. It is said that the dead pile up faster than they can be disposed of and that grave digging in the frozen ground is next to impossible.

Dr. Tom A. Williams

Has returned to Washington after an absence of eighteen months in France. While there, he acted as neurological adviser to the American Red Cross, for whom he has written a comprehensive book upon "Disorders of the Nervous System in Warfare," based upon observation in the French, British and American services.

Dr. A. S. Lilly,

A graduate of the Medical College of Virginia, has located in this city, for the practice of his profession, in the offices of the late Dr. T. N. Broaddus.

Medical Interne Wanted At St. Elizabeth's Hospital, Washington.

The U. S. Civil Service Commission, Washington, D. C., announces open competitive examinations for medical interne, both men and women, on March 12, April 9, and May 7, 1919, to fill a vacancy in St. Elizabeth's Hospital, Washington, D. C., at a salary of \$900 a year and maintenance. St. Elizabeth's Hospital has over 3,000 patients and about 800 employees to care for.

Applicants must be unmarried, twenty years of age or over on date of examination, and must not have graduated prior to 1915, unless they have been continuously engaged in hospital, laboratory, or research work along the lines of neurology or psychiatry since gradua-

tion. If interested, apply at once for Form 1312, stating the title of the examination wanted, to the above Commission, or to the secretary of the U. S. Civil Service Board, at any place where they have offices.

Doctors Attend Masonic Meeting.

Drs. W. Lyle Ould, Concord, Va., and R. L. Page, Batesville, Va., attended the meeting of the Grand Lodge of Ancient Free and Accepted Masons, which was held in Richmond this month. Dr. Ould was appointed a district deputy grand master and Dr. Page one of the lecturers.

Dr. Charles R. Robins

Was elected one of the directors of the Chamber of Commerce of Richmond at its annual meeting this month.

Large Number Of Tubercular Men Discharged From Army.

Dr. W. G. Stimpson, of the U. S. Public Health Service, stated to the Senate Buildings Committee, this month, that 24,000 soldiers have been discharged from the army as tubercular since the beginning of the war. He further stated that the history of tuberculosis patients indicated that they would be in the hospitals one-third of the time. Tentative plans of the Public Health Service for adding 2,000 beds to existing hospitals were described.

Dr. Ramon D. Garcin,

Of this city, was elected one of the directors of the Bank of Commerce and Trusts and also of Church Hill Bank, this city, for this year.

Dr. P. M. Chichester,

Formerly of Bethesda, Md., was named acting chief health officer of Richmond, in January, to succeed Dr. Roy K. Flannagan, resigned. The appointment was made by Dr. E. C. Levy, director of the department of Public Welfare.

Dr. E. C. Banner

Has returned to his home at Coeburn, Va., after a visit to Orange County, Virginia.

The Rockefeller Foundation,

For the year 1919, has a program which comprises extensive work in public health and medical education. The public health activities to be carried out during the year will consist chiefly of efforts against yellow fever, tuberculosis in France, malaria and hookworm disease. The Foundation's chief work of the year

in medical education will be in connection with the development of training in modern scientific medicine in China, through the Foundation's China Medical Board.

Spanish "Flu" More Deadly Than War.

According to figures just made public, the ravages of the Spanish "flu" and its sequela, pneumonia, among the civilian population in this country have been more disastrous during the four month period from September to January than were America's losses by death in the military service during the nineteen months of war. It is estimated that a complete census of the number of deaths from this disease in the period named would disclose between 250,000 and 300,000 deaths. New York City reported 27,362 deaths—the largest number given by any one place. However, the mortality rate was greatest in San Francisco.

Dr. and Mrs. William E. Croxton.

Of King William County, Va., visited relatives in this city recently.

Dr. Alvin F. Bagby,

Recently of Petersburg, Va., has gone to Saranac, N. Y.

Large Number Of Wounded Still Overseas.

According to a statement made by Col. W. H. Smith, of the Surgeon General's Office, January 23, wounded American soldiers remaining in hospitals overseas number approximately 104,000. Many of these will not be brought home until they recover.

Dr. H. M. Miles,

Wise, Va., has been in New York for several weeks, doing eye, ear, nose and throat work at Roosevelt and Knapp Memorial Hospitals. He expects to return home about the first of March.

Dr. I. W. Costen,

Formerly of Wallaceton, Va., is now located in Suffolk, Va.

Assistant Wanted—Dr. James W. Reed, Ocean View, Va., announces that he would like to secure an assistant or associate. Good terms will be arranged.

For Sale—Richmond doctor retiring from practice will sell eleven room residence and office, in one of most beautiful sections of the city. Will introduce purchaser to clientele. For further information, address X. Y. Z., care *Virginia Medical Monthly*, Richmond, Va. (Adv.)

Obituary Record.

Dr. Walter Stevenson Slicer,

For a number of years a well known physician and surgeon of Roanoke, Va., died in Princeton, W. Va., January 22, as a result of hemorrhage following a tonsillectomy. In August last, he enlisted in the medical corps of the army, and was stationed at Camps Greenleaf and Hancock, until released from the service just prior to his operation. His remains were carried to Bedford County, Virginia, for burial.

Dr. Slicer was born in Montvale, Va., thirty-eight years ago, and studied medicine at the former University College of Medicine, Richmond, from which he graduated in 1904. He had for several years been surgeon-in-charge of the Shenandoah Hospital, in Roanoke, and was one of the Norfolk and Western Railway Surgeons. His wife survives him.

Dr. John William Koontz,

Of Mt. Jackson, Va., a prominent physician in that section, was found dead in his home early this month, having been dead for several hours before the body was found. His wife died three years ago. He was sixty-two years of age and a graduate of Jefferson Medical College, Philadelphia, in 1880. He was a member of the State Medical Society and other medical associations.

Dr. Frank E. Williams,

Who recently sold his farm, "Brookdale," near Charlottesville, Va., where he had lived for the past fifteen years, and moved to Capron, Va., died at the last named place January 24. He was fifty-seven years of age and had retired from practice several years ago. He graduated from the Medical College of Virginia in 1884.

Major John Ravenswood Hicks, M. C.,

Of Staten Island, N. Y., but formerly of Warrenton, Va., died recently of pneumonia, at Langres, France. At the time of his death, he was head of the medical department of the 302nd Tank Corps. Major Hicks, who was 47 years of age, received his medical education at the University of Maryland, from which he graduated in 1893. He was a veteran of the Spanish-American war. His widow and a son survive him.

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Original Communications.

CRIMINALITY AND MENTAL ABNORMALITY.*

By JAS. K. HALL, M. D., Westbrook Sanatorium,
Richmond, Va.

I have for some time been slowly inclining to the belief that much of so-called criminality is merely a peculiar manifestation of mental abnormality. Law may be looked upon in this country, at least, I presume, as the expressed opinion of the whole people, and this written opinion cannot be even temporarily disregarded or set aside without risk of individual penalization. The criminal is one who has been convicted in the courts of having violated the wishes of the people, that is, the law. In the hope that the particular individual may be deterred from repeating the crime, he is punished. Any potential criminals in the community are at the same time thereby warned against similar conduct.

My own experience with criminals and criminality has been too limited, however, to serve as a basis in reaching a sound opinion in a matter so complicated, but, in *Mental Hygiene* for January of this present year, I find an article which sustains the belief to which I have already given expression. The article is by Doctor Bernard Glueck, director of the psychiatric clinic of Sing Sing prison, and it is entitled, "A Study of 608 Admissions to Sing Sing Prison." The National Association for Mental Hygiene has been interested in the improvement of prison administration, and through the influence of this

National Organization the Rockefeller Foundation was induced to make it possible to place a trained psychiatrist and assistants in Sing Sing prison for the purpose of making an individual study of the character of each prisoner as he was admitted. In other words, a psychiatric clinic was established in the prison, and Doctor Glueck was made the director of this clinic. His rather lengthy article is a report covering the operations of the clinic from the time of its establishment, August 1, 1916, to April 30, 1917, a period of nine months. During this period, 683 individuals were admitted to Sing Sing, but of this number only 608 cases were studied, but the cases studied represent consecutive admissions of adult male prisoners.

In making use of the approved scientific methods of examination, both mental and physical, Doctor Glueck found that 59% of the 608 men, or 359, were classifiable in terms of deviation from average normal mentality. Of this group of 359 men of abnormal mentality, 73, or 12%, were mentally diseased or deteriorated; 171, or 28%, were mentally defective; and 115, or 19%, were constitutionally inferior, or so-called psychopaths. The age in years at the time of imprisonment ranged all the way from sixteen to sixty-eight, but the majority of prisoners were committed at about the age of 23.

But of the 171 cases embraced in the group of mental defectives not one in mentality was beyond the age of 12 years. Please remember that these 171 cases had the mentality only of children, and that they had been sent up for correction, not to a reformatory or a school, but to a prison for punishment, where they

*Read at the meeting of the Tri-State Medical Association, Richmond, Va., February 19-20, 1919.

were brought into unremitting, daily contact with hardened and degraded criminals from all parts of the earth. Of these 171 defective individuals many were in mentality not even twelve years of age; five, indeed, had the mental equipment of a child of only nine years; twenty-one, the mentality of a child of ten, and fourteen were mentally only eleven years of age.

In the cases referred to in the mentally diseased group are found 73 prisoners. Of this number thirty-six were out-spoken cases of dementia praecox; three exhibited the manic-depressive type of mental disorder; three were paranoiacs; fifteen were alcoholic and drug addicts, and thirteen exhibited syphilitic disease of the central nervous system.

In the psychopathic group are classed 115 individuals. Definite and dependable diagnostic criteria are not so available here as in the other groups, and the condition is, consequently, not so easily differentiated from the mental normal as is, for instance, dementia praecox or paresis or epilepsy. These psychopaths are extremely susceptible to suggestion, however, and most of them exhibit emotional instability and in high degree antisocial tendencies. In plain language, they are social misfits, difficult to live with in comfort to themselves and to their neighbors, and they frequently come in violent and disastrous conflict with the established and prevailing customs in their environment. Because of their peculiar mental make-up they are mal-adjusted and it is generally impossible for them to acquire comfortable adjustment.

The statement that the majority of prisoners in Sing Sing are repeaters may not excite surprise. Of all the prisoners more than 66% have previously been in prison. In spite of this fact, however, within each period of five years there are released from all restraint and sent back into society more than 85% of the total prison population. Of this number more than 4/5 are known to be repeaters at the time of their discharge. More than three out of five of these discharged prisoners have been imprisoned more than three times. The only conclusion to be drawn from these facts is that as a reformatory agency, prison treatment is a failure. As indicative of an environment in which repentance is experienced the word penitentiary loses its original meaning.

It may be of interest to inquire into the nature of the criminal act for which these individuals were sentenced. More than 60% of the prisoners had appropriated to themselves the property of others; more than 20% were found guilty of assault of one kind or another; 10% were convicted of sexual crimes; a number were adjudged guilty of rape, and several were convicted of murder. In spite of these grave charges, and in spite of the fact that more than half of these prisoners were mentally abnormal and more or less habitual violators of law, they are being sent out from prison daily into free and unhampered association with their fellowmen. It is wrong, of course, terribly wrong, both to the abnormal individual who is unable to restrain himself, and it is even more wrong to the individual constituents of his human environment, who are ignorant alike of his criminalistic tendencies and his mental abnormality.

From this preliminary report of Doctor Glueck it seems impossible to arrive at any conclusions other than the following:

1. The majority of criminals are mentally abnormal, and their criminalistic behavior is the result of underlying abnormality.

2. This fact is unrecognized by the prisoner himself, by society, by the medical profession, and the courts of law.

3. As a reformatory agency the modern prison administration is a failure because of its inability to understand that it is dealing with human beings who are of unsound mind.

4. The majority of prisoners immediately after their release become a menace to their own welfare and to that of society around them.

All the way down from the most distant past to the present time the tendency has been to look upon mental abnormality as something other than what it is. Hysteria, epilepsy, mania, melancholia, and other clear-cut conditions of mental departure from normal were regarded at one time as the influence of an evil spirit; at another time, as the manifestation of divine displeasure; and still later, even in our own time, occasionally, as the outcropping of individual maliciousness. We have slowly but inevitably been brought face to face with the fact that mental departure from the normal exists; that it may exhibit itself in small or in large degree; and that on ac-

count of the presence of underlying mental abnormality the individual may behave in such a manner as to be classed as a criminal.

The man who suffers from locomotor ataxia is unable to travel the physical pathways of life without exhibiting signs of pronounced muscular incoordination. In like manner, the person suffering from mental abnormality is extremely prone to exhibit moral or intellectual ataxia as he journeys forth amongst his fellowmen along the social pathways that have been laid down, unseen, indeed, but no less real than sidewalks and roadways. Is it fit and proper that these individuals should be punished because of their inability to walk in these straight and narrow pathways that we have marked out for ourselves? We must remember that many criminals are mentally only children, and if we do not expect physical infants to be able to walk steady we must not punish intellectual and moral infants if they totter and fall.

My own feeling is that we are coming near to the time when crime will be looked upon first, and often last, as a medical, rather than a legal, problem. Does it seem rational that one man should array himself against society, voluntarily and with premeditation, in an effort to outwit it? Should not a sensible man know that one lone person is too frail in his attempt either in wit or in might to outdo the entire state? Criminality must yield the poorest returns of any pursuit in the world.

I have been favorably impressed by the method adopted by the Federal Government in its effort to ascertain the fitness or the unfitness of a man for military service. It does not assume that a citizen wishes to enter the army or to remain at home; it does not assume that a registered man is physically sound or unsound; it does not assume that a man is mentally normal or abnormal—in regard to all these questions even the War Department maintains a judicial attitude. The responsibility of determining the physical and mental fitness of a citizen for military service has been placed by the government upon the medical profession. That is where the responsibility belongs. Our profession has cheerfully accepted this responsibility, and we physicians are now making use of all the technical skill we possess in order to perform this important duty in such a manner that injustice

may be done neither to the individual nor to the government.

In like manner, in my opinion, the first duty of the government to a citizen charged with a crime is to ascertain whether or not that citizen is mentally sound or unsound. If he be found mentally abnormal, it must then be determined whether or not the crime with which he is charged is the result of the mental unsoundness. This condition can be ascertained neither by court nor by jury, but only by medical men. I hope the time is near at hand when a medical examining board will constitute a distinct portion of the machinery of every criminal court. Every prisoner should be subjected to repeated examinations and to prolonged observation by medical men, and the result of these examinations should be reported in writing to the court. The dignity of judicial justice is lowered when a mental infant or an insane person is imprisoned or killed by the state; society, on the other hand, is made to suffer when a criminal of normal mind escapes punishment on the plea of insanity. The dignity of the medical profession suffers when the motives of the physician on the witness stand are questioned and his expert opinion derided. Physical and mental examinations cannot be conducted in an open court room; these problems must be solved by medical men in the privacy of an examining room. The medical opinion should then be reported to the court and to the jury.

It is written of the greatest ruler of ancient Israel:

"In Gibeon the Lord appeared to Solomon in a dream by night and God said, Ask what I shall give thee. An solomon said: I am but a little child . . . Give therefore thy servant an understanding heart to judge the people, that I may discern between good and bad, for who is able to judge this, thy so great a people?"

EXPERIENCES OF A MEDICAL OFFICER IN FRANCE.

By MAJOR B. L. HILLSMAN, M. C., Richmond, Va.
Mr. President and Fellow-members of the Academy:

On being requested to address you tonight, I accepted with pleasure, since it is wonderful to be back home, and this society, in a large

*Read at a meeting of the Richmond Academy of Medicine and Surgery, February 11, 1919.

sense, is the professional home of many of us who have been in France. As I said, it is great to be back home—one has to go without the comforts of life to appreciate the good things we have over here—and while it was good to go, it is still better to return.

My work in France was largely routine and there came to me no medical or surgical curiosities; nor did I take part in any pioneer surgical work. Abdominal sections, amputations, etc., are about the same no matter where done, and I have not much to tell you of a technical nature. I stated as much to your committee, but was told that doctors get a little tired at times of technique, and that you would be perhaps more interested in the life that was led, than in the things that were done. It is in this way I shall speak.

Now that it is all over, there is a sense of incompleteness about it. We were trained to do so much more than we were called on to do. Our medical training and preparation were such as would have been used had we had the long grind of Britain and France, but America put forth its strength when it served to turn the tide and the race of war was soon ended.

When I left here, I was assigned, as most of you know, to the Post Hospital, at Fort Monroe, and, coming in favor there, was put in charge of the hospital. Being slated for foreign service, I was sent to New York for a course in brain, spinal-cord and peripheral-nerve surgery and finally received orders for foreign service. These orders attached me as Chief Surgeon to Evacuation Hospital No. 18, which had been formed at Camp Zachary Taylor, Ky.

An evacuation hospital is one for emergency work. It receives its cases from the advanced dressing stations, does what is necessary and sends them on, conditions permitting, to the base hospitals, which are further back of the line. The staff of this hospital consisted of thirty-four physicians, sixteen of them being surgeons. These, in turn, were divided up into operating teams—such a team consisted of, usually, a major, captain and lieutenant, or operating surgeon, assistant and anesthetist, with two nurses and two orderlies.

We sailed from Hoboken on the night of August the 29th. There was nothing of interest in the trip, which occupied two weeks. We happened to be on the Kroonland, which

was capable of making much faster time, but we were part of a convoy, and, of course, could go no faster than our slowest ship. About 600 miles from France we were met by fourteen American destroyers. They changed our course and made us go South in a long detour. An American ship had been torpedoed a short while before in the area for which we were heading. The Kroonland, in a subsequent trip, was in a convoy which was attacked by several submarines, but we, fortunately escaped and made the harbor of Brest without mishap.

Brest was a scene of gigantic activity. Thousands of negro stevedores were unloading ships into lighters and again into enormous warehouses. One could see supplies enough apparently for all the world, and they were constantly coming in. We disembarked and went to the rest camp, or Portinizean Barracks. It was unfortunate that this should have been our introduction to France, and I understand the condition of this place has necessitated military investigation. Certainly to me, it is a memory of mud and cold. It was about as much a rest as college hazing, or a fraternity initiation. That, perhaps, best describes it, for it was the beginning of damp nights, sleeping on duck-boards, and an all embracing, all pervading mud. Volumes could be written on the mud of France. It is more slippery than glass, more tenacious than glue. It is in a class all its own.

The week of this sort of rest being happily passed, we were ordered to LeMans, for gas-training. This was, of course, necessary, for hospitals had become the favorite prey of the Germans, both in open shelling and in night air-plane attacks, while the old gas cloud had given away to the newer and more deadly gas shell.

There were three days of this and we moved on to the little town of Cuperly for our equipment. Here we were in the same fix as the first recruits of England. We were organized, but there was no equipment, and rather than stay idle we were split up and assigned to other work.

Two operating teams were sent to join Mobile Field Hospital No. 7, and I went with one of them. Associated with me were Capt. Turner and Lieut. Moffet, both from Ohio. We reported to "No. 7," which was under the command of Major Heyd, of New York, and felt ourselves very lucky for the Mobile hospitals

usually saw a great deal of work. The mobile field hospital was an outcome or development of the needs of the war. We were ready at a moment's notice to move to any destination. Our equipment was on fifty trucks and everything was movable. The X-ray department, which, in this instance, was in charge of our own Dr. Henry Stern, was on a truck, as were our kitchens and washing machine. The operating and hospital tents were large oblong tents, made in England, and called Besnau tents. These were very expensive and were covered, after being put up, with tar-paper. This was to make them light-proof, as a lighted tent would have been easy meat for the German artillery and bombing planes. We joined the hospital at Somme-Py on October the 9th, when the great offensive was in full swing.

If you will allow me to review the events of the months preceding this, I think it will help you a little to visualize our situation. When the great offensive commenced at Chateau-Thierry, on July 18th, the American forces were scattered and fought mainly under the French. When this great salient had been wiped out the American army was formed and began independent operations, its first effort being the wiping out of the St. Mihiel salient in September. From Grand-Pre east, the line was almost entirely American, but from Grand-Pre west, the operations were mainly French. Here was the Third French Army, under General Mangin, and attached to them was the Second Division, with the Marines, and some other regiments. It was back of these American forces attached to the Third French Army, that we set up our hospital in the old town of Somme-Py.

Somme-Py is near the River Aisne, and this had proved a barrier to the allied forces. The credit of breaking this line, I understand, belongs to some regiments of native American Indians. This happened several days before we arrived, but I was told by one of their captains of the incident. There were high hills on the north bank of the Aisne, and from here the Germans laid down a machine-gun barrage on the advancing Indians. At first, they were demoralized, but on seeing their dead comrades lying around them, they suddenly went blood crazy. They charged across the river and kept going so far beyond their objectives as to necessitate rushing up of other troops to sup-

port them and a sudden change in the entire plan of battle.

It was at Somme-Py I received the real thrill of my entire service. I was in the operating tent watching Captain Bartley do an abdominal section. There were two tables here about six feet apart and everything was quiet. Suddenly there was a swish, and a three-inch shell came through the tent and stuck in the ground between the tables. I admit, I was frozen, and could only stare at the shell and Capt. Bartley was in the same condition. Fortunately, it was a "dud"—a shell which fails to explode—and we were brought back to our minds by the quiet voice of the nurse, saying, "Here are your sutures, Capt. Bartley, here are your sutures." Hers was apparently the only tongue in the tent capable of talking, or the only one able to make a sound. The shelling increased and we had to move back to Snippe for a few days until the line advanced and we again went into Somme-Py.

Shortly after, I was invited to go up near Vouziers, with a French colonel, to take some pictures. We went in his car and arriving, he went on an errand and I stepped into a little shop. While there I heard that indescribable screech of an approaching shell, and looking out of the shop, I saw about a block off a house blow out and collapse in a fog of smoke and dust. In a minute, another house near it went by the same route, and I decided I must be going. I did not have time to wait for the colonel, courtesy was not my strong point then, and I caught a truck and beat it. As we reached a hill south of the town we looked back and all over it was springing up these dust clouds of exploding houses, like boys throwing pebbles into a puddle of mud.

Not long after this, we received orders to rejoin Evacuation Hospital No. 18, which at this time was back of the Second American Army, at St. Mihiel. We stayed with them until the end of the fighting, and some of it was very severe. This Army had done very little, but was being groomed for a big offensive, to start November 14th. Seeing that things were coming to a close, they, wishing to get in it, started over the top about the 8th. On the night before and the morning of the armistice, I never heard such terrific artillery fire. The gunners seemed afraid there would be some unused shells; and then at five minutes to eleven it stopped. It stopped as one turns out a

light and the dead silence suddenly came; everything was, in a way, as terrifying as the terrific noise had been before. Of course, there was a great deal of rejoicing over the armistice. But it was not true with the men who had been preparing and had not yet gone over the top. These felt they had been cheated and their months of arduous preparation had gone for naught. On the other hand, those divisions who had been in it from the first, such as the 1st, 2nd, 42nd and others, were glad enough of the chance of coming home with a whole skin.

For one week discipline went to pieces. It was supposed to be a week of rejoicing, but I believe it was a week of nervous reaction, and what excesses there were, were due to nervous relaxation after the tension of many months. There was a peculiar, lost, misplaced feeling that in effect really made you miserable.

During the week I had the opportunity to go into Metz. Several American units had gone into Metz with the French; but something must have happened, for after that week, no member of the American forces was allowed in the Metz area without a special order from General Headquarters. What had happened here or elsewhere. I do not know, but I do know that following the week of the armistice, discipline became more severe than at any time in France. The authorities closed down with an iron hand, and things became, in army language, tight—real tight.

Soon after this the American Army moved towards Germany, and we took charge of a very large German hospital in Briey, and I was under a roof for the first time in France. This place was a revelation in hospital equipment. The buildings were splendid and there was everything in electrical equipment, magnificent X-ray, large elevators, splendid kitchens and laundries. I believe I am competent to judge, and I have never seen in this country a more splendidly equipped institution. For instance, there was no sewerage here, but these people had built a large concrete septic tank and incinerator, which could have cared for a good sized town.

In this hospital were a few badly wounded Germans, unable to be transported, and a few German physicians left to look after them. These physicians left as soon as passports could be secured, turning their wounded over to us.

Though this hospital had, with outside barracks, a capacity of 1,500 beds, we soon became swamped. This was due to a change in orders. Whereas, in fighting days wounded were going back and replacements were coming up all the time, the authorities did not wish to take green men into Germany. Their orders were to hold any man who could be returned to duty in two weeks. This, virtually, made us a base hospital, and soon we became overcrowded. This necessitated my going to headquarters for instructions, and headquarters at this time were on the Rhine at Mayen.

I went here in an auto and spent three days on German territory. I confess, I could see no sign of suffering. There were food, clothes and all necessities, except sole leather. Of this there was a very apparent shortage, and shoes with wooden soles were a common sight. As to what the Germans thought or said, I do not know, since the order was absolute in preventing all social intercourse with the people, even had we desired it.

On my return from Germany, I received permission to apply for coming home, and on New Year's Day, I left France on the George Washington. Technically, I gained very little. I had been trained in head, spinal-cord and peripheral-nerve surgery, but there were not great numbers of operative cases of this class. Most head wounds, to quote Kipling, were A big blue mark on his forehead and the back blown out of his head."

It is said that President Wilson inquired of a sergeant at Neuilly, why all the men were wounded from the chest down. The reply was, "Well, sir, those wounded below the chest are here, and those wounded above ain't here." The large majority of all wounds were from shrapnel, and I saw only one bayonet wound in my entire service.

Before I close I wish to tell you of one of the most remarkable men I ever met. While occupying the German hospital at Briey, I met a French curé, or priest. He was educated a priest, but under the exigencies of the occasion had turned physician. When the Germans swept over the land the physicians had fallen back with the French army. There were no French physicians to look after the civilians who were now under German domination.

This curé told me that the German physicians had acted as extortioners, going to see a sick Frenchman for twenty francs or more

and absolutely neglecting the very poor. Something had to be done, so the priest turned to studying what medical books he could get, and started to practice. He practiced within an area of fifty miles and brought many cases to the hospital. Now here is the wonder of it. I have seldom met a better diagnostician, and according to my ideas, he was an accomplished and thorough physician. Self-taught, he had perfected himself as few men do; and given as we will never have to give, and all for his suffering flock and for *La Patrie*.

312 West Grace Street.

HEREDITARY PREDISPOSITION TO APPENDICITIS.

By E. M. MAGRUDER, M. D., Charlottesville, Va.

I desire to make the following report upon the repeated occurrence of appendicitis in the same family, as my experience in this line with four families is interesting. Each head of a family will be represented by the initial letter of the family name, and each immediate descendant by his or her first initial.

Mr. W. had five children, four sons, S., H., E. and J., and one daughter, A.

Son "S" has eleven children, seven sons and four daughters. He himself and one son had appendicitis without operation, while three other sons had this trouble with operation—five in all.

Son "H" has five children, two sons and three daughters. He himself (and also his wife), and one son, had appendicitis with operation—two.

Daughter "A" had appendicitis with operation. Neither of her two children (daughters), have yet been affected—one.

Son "E." has five children, two sons and three daughters. Two sons and one daughter have had appendicitis with operation—three.

Son "J." has six children, but none of his family have yet been troubled.

Of the thirty-four descendants of *Mr. W.*, eleven, or nearly thirty-three per cent., have had appendicitis.

Mr. S. had eight children (five sons and three daughters). He, himself, and one daughter had appendicitis without operation and one son had this disease with operation. Three of these nine persons, or thirty-three per cent. had appendicitis.

Daughter "A" has six children, two sons and four daughters. One son and one daughter had appendicitis with operation and one daughter has this trouble but has never been operated upon—three.

Son "I." has four children and son "J." one, none of whom has had an attack.

Of the twenty persons in the family of *Mr. S.*, including himself, six, or thirty per cent. have had appendicitis.

Mrs. S. had one child, daughter, and both had appendicitis with operation—two.

Mr. E. had three children. He and one son have both been operated upon for appendicitis—two.

In these four families totaling sixty persons, nineteen, or nearly thirty per cent., were afflicted with appendicitis.

A NEW INCISION FOR APPENDECTOMY.

By LEIGH F. WATSON, M. D., Chicago.

Many writers have noted that in the cadaver the base of the appendix is found at McBurney's point, while in the living subject it is below this point, usually on a level with the center of Poupart's ligament. A number of operators have called attention to the ease with which the appendix can be removed when operating for right inguinal hernia. Since 1910, I have used a new incision, with its center over the base of the appendix, and believe that in many cases it is an improvement over those in general use.

Incision:—A point one and one-half inches from the right anterior superior spine, on a level with a line connecting the two superior spines, is selected for the beginning of a vertical incision which extends directly downward for two to three inches to a point just above, and to the inner side of the internal abdominal ring.

Advantages:—Traction to expose the appendix is avoided, because this incision, in the external oblique and its aponeurosis, the most resistant structures, is directly over the base of the appendix. It can be enlarged without weakening the abdominal wall. The ilio-hypogastric and ilio-inguinal nerves are not injured because the incision lies between them. Because this incision is made over the cecum, the small intestines do not crowd into the wound as they do when the McBurney and lateral rectus incisions are used.

30 N. Michigan Ave.

WILL WE HAVE INFLUENZA THE SECOND TIME?

By A. B. GRUBB, M. D., Cripple Creek, Va.

It is an accepted axiom that we will not have the ordinary contagious diseases, such as chicken-pox, small-pox, whooping-cough, measles, scarlet fever, roseola, etc., but one time. If there are exceptions to that rule they are so rare as to be generally ignored. Diseases with local manifestations, such as diphtheria, scabies, ring-worm, etc., do not confer immunity to following attacks, but the general infections, such as those named above do confer immunity, and, if measles breaks out in one family, the next door neighbors will do all they can for them as nurses (provided, of course, that they are immune themselves from a previous attack). But during our recent epidemic great difficulty was found in getting those who had recovered from influenza to nurse those who were stricken, due to the dread of having a second attack.

The local papers were full of reports that "so and so has flu the second time." Many physicians were actually reported as saying that we would have a recurrence every twenty-one days, but in my community not one single person had the second attack, and no one, who had influenza twenty-nine years ago had it this time.

In September, the epidemic struck one section of my practice. By insisting on every one "toughing it out" and not allowing any neighbor to come into his room, the disease was limited to less than two hundred cases, and then died out.

Just as we were about to forget there had ever been any flu, it broke out in explosive form in town and at the mines, where the houses were close together. It spread like wild fire and soon nearly the whole population was in bed. This was in the latter part of November, and my other patients were as strong as usual. Of the two hundred who suffered from flu in September, probably fifty went in and helped nurse during the last epidemic, and not one had a second attack.

In the meantime a few families had moved in from Fries, where they had passed through the epidemic. These families also helped their neighbors, nursed them during the first days of infection and through convalescence and relapses and they did not have the second at-

tack. Many of these made almost a house to house canvas.

It was very noticeable that the aged were not often stricken, probably due to an attack twenty-nine years ago, or probably an epidemic previous to that, of which no record was made.

There were dozens of instances who gave a clear cut history of the flu of 1889-90, and not one had it this time. One particular instance was a young man who nursed his wife and baby and visited a tenant on his farm where about ten were in bed. He was sure he would be sick at any time, but later it was discovered that he was an infant four weeks old, during the 1889 epidemic, when he and his mother were both ill.

Another instance was that of twin brothers, each of whom distinctly remembered having had influenza (or La Grippe, as it was then called). Each had a family of ten children. Every child was sick and nursed by its father, but neither father had the disease, though constantly with his children.

The diagnosis of measles, roseola, chicken-pox, small-pox, etc., is so comparatively easy, that the question of a second attack has been settled, but the diagnosis of influenza being more difficult, it is natural that conflicting reports should be made. Many times, a tonsillitis is hurriedly diagnosed influenza and later the patient has the genuine thing, thus giving rise to the report that he had the flu the second time.

Conclusions:—In this community, no one who had influenza or la grippe during the 1889-1890 epidemic, had it during the past epidemic. Those who had it during the September epidemic, did not take it during the November-December epidemic. These observations were made on about six hundred cases.

Proceedings of Societies, Etc.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Reported by Emil Mayer, M. D., New York, N. Y.

(Continued from page 295.)

Report of a Case of Prolonged Intubation.

By EMIL MAYER, M. D., New York City.

A boy aged nine years had had diphtheria at the age of two, for which tracheotomy was done, resulting in a tracheal fistula, for which he was admitted to the hospital. Attempts to close by this plastic operation failed, with the

result that a tracheotomy tube had to be inserted.

Stenosis of the larynx followed, which was treated by divulsion, with subsequent introduction of an intubation tube. This tube had to be removed under suspension and promptly reinserted at intervals for a period of five years, always under general anesthesia. Finally, in April, 1918, the intubation tube was removed. A tracheotomy tube was inserted for a couple of days. This was removed, the wound closed, the patient breathing since through the natural passages. The writer concludes:

The special points of interest in this case are:

1. Persistent remaining of a tracheal fistula in spite of every faithful attempt at its closure.
2. A stenosis of the lower portion of the larynx due to contraction of the natural parts, and their consequent disuse.
3. The impossibility of intubating except under general anesthesia and under suspension.
4. Persistent collapse of the larynx as soon as extubated.
5. The prolonged wearing for five years of an intubation tube.
6. The ability to breathe through the natural passages after all these years, in spite of the loss of at least two anterior rings of the trachea.

To this happy outcome must be attributed, in great extent, the growth of the patient, who, from a little boy of nine, and four feet in height, is now nearly fifteen years old, and has attained a height of five feet five inches, with natural increase in size of all his organs, including the trachea and larynx.

DISCUSSION.

Dr. Henry L. Swain, New Haven: I should like to inquire as to the development of thyroid and cricoid cartilage, notwithstanding their disuse—do they grow in the normal way?

Answer: Yes.

Dr. Joseph H. Bryan, Washington: It must have taken long continued, patient work.

Dr. Thomas H. Halsted, Syracuse: I hoped that Dr. Mayer would help me out on a case that is at present under my care. Three months ago I was called to see a child a year old which had had a mild laryngitis for several days. A general physician was in charge of the case. One night the dyspnea became worse, and I was called in. I found the child cyanosed and the dyspnea very great. Examination revealed nothing. I had the child sent to the hospital, and went there myself in my car, after tele-

phoning for them to have the instruments ready for immediate intubation. The tube was put in immediately and a culture was made and found negative. Antitoxin was given on general principles. At the end of six days I removed the tube, but had to put it back immediately and make artificial respiration. We gave this child antitoxin during the first few days. The throat was examined repeatedly, but the culture was always negative. It has been three months now, and during this time I have extubated eight times and intubated nine times. I did a direct laryngoscopy a month ago, and found nothing but an ashy appearance of the trachea, resembling a pseudo-membrane. I did not do a bronchoscopy. We suspected the existence of a foreign body, and the child has been X-rayed several times, always without result. The child is perfectly well otherwise, and has gained in weight. It walks about and enjoys itself, and has no difficulty in swallowing, but I do not know how to get rid of the tube. The grandmother wants me to say that she believes that it was all due to teething. I do not know. The child has had one very slowly erupting tooth, one of the molars. It has been exceedingly painful. It has taken that tooth, which looked as if it were ready to erupt when the thing happened, until now, to come through, and in the meanwhile a number of other teeth have erupted.

Dr. Charles W. Richardson, Washington: The case of Dr. Mayer's is a very interesting one. In former days, when I did a great many intubations, I occasionally met with some prolonged retention of the tube, but I think that Dr. Mayer has the record for long retention of the tube, and I wish to congratulate him on surmounting his various difficulties, especially after the loss of part of the cartilage.

May I ask whether he does not think that there was some regeneration of the cartilage later on, which caused the box of the larynx to stiffen up so that its firmness made it possible for him to eventually take out the tube and dispense with it entirely? That seems to me to have occurred in this case.

Regarding Dr. Halsted's case: Some few years ago, I reported a series of cases of laryngitis hypertrophica subglottica acuta, and I should judge from what he describes that it was a case absolutely of the same character. Such is the usual history of these cases, as he

describes and as I have seen them. They are usually very intractable with regard to the removal of the tube. They have in the past given me more trouble than the fewer retained tubes in diphtheritic cases, as you would naturally expect on account of the fact that the primary trouble in these cases is subglottic in the cricoid region. Of course, when I took out the tube in these retained cases, the stenosis immediately recurred or soon thereafter. It takes some time to get rid of the tube. I should not worry about it, but keep on in the same way he is now following. I have had cases last three or four months before eventually being able to dispense with the tube.

Dr. Henry L. Swain, New Haven: I presume that Dr. Halsted adopted the method of giving large doses of an antispasmodic before attempting to take the tube out. That is often successful. You can then remove it, when you would not be able to do so if the child was in possession of all his reflexes. I have had exactly the same kind of case as Dr. Halsted. In fact, there are three in the hospital now. One is just like this, and the others are retained tube cases. I have had trouble to get rid of them. I am sorry that I forgot Dr. Richardson's suggestion, and I think that this explains the situation perfectly. However, I did try to look upward in one of the cases. I was called in consultation and thought that it would be a good thing to do a tracheotomy and take the tube out. At the time of the operation and later, I tried to look in from below and see the condition of the larynx and find out what its interior contained, but without success. Some time after the tracheotomy this child had a sudden choking fit and died. We could not explain the matter, unless it was general uremia. The other children got well, but in these we had almost to stupefy the patient before we could get the tube out and have it stay out. In one case we had to keep the child under the narcotic for a whole twenty-four hours. These two children are all right now.

Dr. Emil Mayer, New York City, closing: Replying to Dr. Richardson's question, I would say that perhaps there was not so much reformation of cartilage, but that on account of the long continued presence of the tube all the tissues about the trachea became as hard as whips. So we had almost bony ridges on each side, which served to prevent the collapse that

surely would have occurred from the falling in of the soft parts.

Regarding the case that the chairman presented, it does seem that an acute laryngotracheitis of some kind was the original cause requiring intubation. Dr. Lynah, in a masterly paper on "Prolonged Wearing of Intubation Tubes," recently called attention to the immediate collapse that takes place in many instances when the tube has been removed, requiring a hasty reintubation. In fact, he tells of a case in a boy who was extubated and returned to the ward. The boy was under the impression that the tube was still in situ. He was kept in the hospital for some time, and every time he misbehaved they threatened to remove the tube and he immediately behaved. The tube was not there, but he thought it was. I would suggest to Dr. Halsted to introduce a much larger intubation tube next time, and when he does extubate to have the patient under some opiate, so that the general reflexes would cease, watching over him for that time of immediate danger and the likelihood of having to do a tracheotomy.

Regarding the question of Dr. Swain, as to whether the patient did not receive quantities of antispasmodics, I would say that the boy was never extubated except under general anesthesia. He has been receiving an eighth of a grain of morphia, and then being completely anesthetized while the tube was removed for cleansing, and this latter had to be done in a hurry. He has been anesthetized over twenty-five times, and each time the anesthesia became more difficult because he was pretty well soaked with the drug. I hope that we shall not have to do any more for the little chap because he has been very brave. It certainly was to me a most interesting case, and one of the most important deductions that we can make is the wonderful tolerance of the larynx. The keeping of a tube in a larynx for a month's time seems to make no difference to him.

Report of Syphilitic Necrosis of the Inter-maxillary Portion of the Superior Maxilla.

By LIEUT.-COL. CHARLES W. RICHARDSON, M. C.,
N. A., Washington.

The history of a young man, twenty-six years of age, married, stock broker's clerk, is presented. First seen on April 16, 1917, on account of intense pain in the floor and lateral wall of the left nasal chamber. There was no swelling

or inflammation, and no interference with the function of the left nasal chamber.

The patient had shortly before been operated on, or stated that he had been operated on for a mild affection of the septum, although there was no evidence of such operation having been done. The patient's condition was attended by great suffering.

After a few days, during which transillumination and X-ray examinations were made of the incisors and lateral bicuspid, as well as of the left antrum, all of which were negative, a Wassermann was made which resulted in a double positive.

As there was great tenderness over the upper incisors, patient had four of these removed. Salvarsan was given. In spite of this the intermaxillary bone separated by rapid necrosis in one mass.

The important and salient features of this case are:

1. Severe and continuous pain without any objective signs.
2. The severe necrosis without any inflammatory swelling.
3. The complete limitation of the necrosis within distinct anatomic borders.

DISCUSSION.

Dr. Henry L. Swain, New Haven: In a similar case to Dr. Richardson's, where the patient had most severe pain, after proper internal and local treatment, I removed a sequestrum fully as large as that which he has shown us. A fistulous tract led through to the floor of the nose. The entire premaxillary bone came away, but complete healing resulted.

(To be continued.)

Analyses, Selections, Etc.

Lethargic Encephalitis.

Public Health Reports, for February 21, gives the following interesting account of lethargic encephalitis, commonly called "sleeping sickness," the new epidemic disease, which has aroused so much interest in this country and Europe:

At a meeting of the Vienna psychiatric society, held in April, 1917, Von Economo described a group of cases of a disease occurring in epidemic form to which he gave the name "encephalitis lethargica." A discussion concerning the same disorder was held the follow-

ing month by the Paris Academy of Medicine, and Prof. Netter there expressed the opinion that the disease was not a form of acute poliomyelitis. He also quoted some evidence in support of the view that the disease occurred at the end of the seventeenth and beginning of the eighteenth century in Germany and more definite evidence that it occurred in Upper Italy and Hungary in 1890. Very suggestive cases occurred in nearly all the countries of Europe and in the United States in the spring of 1895. From the data presented by Von Economo it is evident that the disease occurred in Vienna in the winter of 1916-17.

The first case noted in England occurred February 11, 1918, in Bermondsey, and the largest number of cases in one week was eighteen, in the last week in April. The number of cases declined thereafter, and the epidemic, which never attained large proportions, came, at least temporarily, to an end in June.

The disease has been made notifiable in England and Wales under the name of "lethargic encephalitis." Early last year the local government board, with the assistance of the Medical Research Committee, instituted clinical and pathological investigations. The result of these have now been published in a report (N. S. 121) issued by H. M. Stationery Office, London.

The following data are abstracted from a review of the Government report, published in a recent number of the British Medical Journal, to which acknowledgments are hereby extended.

The disease is an acute affection due to a specific virus, which, like that of acute anterior poliomyelitis, probably finds entrance through the naso-pharynx, and which, like it, has a special affinity for the nervous system, though for different areas and elements.

Pathologically, lethargic encephalitis belongs to the class of polioencephalitic diseases which are inflammatory in nature. Bacteriological investigations did not yield any positive results.

Clinically the disease is a general infectious disease characterized by manifestations originating in the central nervous system, of which the most frequent and characteristic are progressive lethargy or stupor and lesion in or about the nuclei of the third pair of cranial nerves. Although a rise in temperature was not observed in all the 164 cases of the dis-

case, of which notes were obtained, there seems to be little doubt that there is always a certain amount of fever in an early stage, although occasionally it may not be observed for several days after the onset of symptoms. The common range is between 101° F. and 102° F., but temperatures up to 104° F. are not very uncommon, and in a few cases a temperature between 104° F. and 105° F. has been reached. The pyrexia usually lasts from two to five days, but many continue for ten or even fourteen. It may fall suddenly or gradually with oscillations. A period of subnormal temperature not infrequently follows.

In the majority of cases a prodromal period may be recognized, but it is not very well defined, the symptoms being the early stage of those of the developed disease. Usually the first symptom is simple catarrhal conjunctivitis and in a smaller number of cases tonsillitis, simple sore throat, and bronchial catarrhs were observed, but the salient symptom observed in eighty per cent. of the cases at this stage was progressive lethargy. It might be ushered in suddenly by a fainting attack or fit, but the onset was more often gradual. The patient became dazed or stupid, slept a great deal, and was drowsy by day. In marked cases the lethargy was accompanied by heaviness of the eyelids, pain in the eyes, blurred vision, and photophobia, and, in a well-marked case, gradually passed into stupor. Headache was common, and giddiness was a highly characteristic early symptom, and in some cases was accompanied by diplopia. Mental hebetude was often associated with a highly emotional state, and the patient might exhibit, without apparent cause, symptoms which might be labeled hysterical. In other instances the mental depression was so great that melancholia was suspected. In a few cases only was the patient restless and irritable. The patient may be indisposed to speak, sometimes has distinct difficulty in articulation. The most frequent and characteristic signs in the prodromal period may be summed up as lethargy, asthenia, vertigo, headache, diplopia, and some alteration in the mental state.

After this prodromal period, if it occurs, the symptoms of a general infectious disease become manifest; the febrile reaction has already been mentioned. The patient lies in bed on the back, often unable to make any voluntary movement on account of great muscular weak-

ness; the face is quite expressionless and mask-like, and there may be definite double facial paralysis. The severest cases lie like a log in bed, resembling a waxen image in the lack of expression and mobility, and this may be accompanied by catalepsy. The patient is in a condition of stupor, although true sleep is often not obtained. Delirium, usually nocturnal, is not uncommon, and in addition to the muscular trouble there is distinct rigidity in a considerable proportion of cases. The voice becomes nasal and monotonous, sentences are uttered very slowly and words slurred into one another. Occasionally, however, once started to speak the patient chatters sentences with so great rapidity that he is often unintelligible. Irregular nonrhythmic spontaneous movements of the face, trunk, and limbs, resembling those seen in chorea or thalamic infections, are not infrequent. Cases occur which present the general symptoms of the disease—pyrexia, lethargy, asthenia—without localizing signs, and as a rule can only be diagnosed from the general surrounding circumstances. The commonest localizing sign is ophthalmoplegia, recognized in seventy-five per cent. of the cases examined. Ptosis is the commonest form of third nerve paralysis and is usually at some stage bilateral. Finally, paralysis is usually bilateral, or becomes so, but is almost invariably more intense on one side than the other.

Dr. MacNalty recognizes seven types of cases—(a) A clinical affection of the third pair of nerves; (b) affections of the brain stem and bulb, (c) affections of the long tracts, (d) the ataxic type, (e) affections of the cerebral cortex, (f) cases with evidence of spinal cord involvement, and (g) the polyneuritic type in which affection of the peripheral nerves is suspected. The prognosis is better than the alarming state of the patient in the fully developed stage would suggest. Among 168 cases, thirty-seven deaths were recorded. The duration of the stupor is very variable; occasionally it lasts two to three days, more often two to five weeks, and in one case, which eventually recovered, it continued for eight weeks. It is too soon to speak positively of after effects, but certain manifestations have persisted after the expiration of three months from the date of onset; these are an alteration in the mental condition, persistent cranial nerve palsy, the appearance of paralysis (apparently of spinal cord origin) and athetosis. The diagnosis may

be very difficult, the lethargy and the progressive character of the cranial nerve paralysis are the most characteristic signs. The frequency of ptosis, paralysis of the ocular muscles, diplopia, facial paralysis, and ocular incoordination are the cranial nerve signs; optic neuritis does not occur save in very occasional cases.

DIAGNOSIS.

The most common error in diagnosis is to attribute the condition to tuberculous meningitis; in many cases a differential diagnosis from cerebrospinal meningitis can not be made without an examination of the cerebrospinal fluid, which is little, if at all, altered in the majority of cases of lethargic encephalitis.

Some of the other difficulties encountered have already been mentioned, but the essential difficulty is to separate lethargic encephalitis from the rare cases of the cerebral form of infantile paralysis. The resemblance is very close, and it seems probable that some of the cases reported in the past as cerebrospinal poliomyelitis may have been examples of the disease now newly recognized in this country (England). Dr. MacNalty has arranged the chief criteria for diagnosis in a table which is too long and detailed for reproduction here. The main points to be noted seem to be that, though the chief symptoms of lethargic encephalitis have been described in cases reported as cerebral poliomyelitis, they are slight, of much briefer duration, and not so constant; lethargic encephalitis, on the other hand, has a very definite clinical syndrome, characterized by progressive stupor or coma, alternating delirium, headache, giddiness, asthenia, mental and emotional changes, and, in the majority of cases, by paralysis of the third pair of cranial nerves. Paralysis, when present in lethargic encephalitis, is usually bilateral and restricted to cranial nerves, but has commonly cleared completely or is less in degree two months after recovery. In these respects it presents a marked contrast to acute poliomyelitis.

There are clinical indications that in the present outbreak both poliomyelitis and lethargic encephalitis have occurred, but not in association with each other.

Dr. MacNalty considers that the question of the identity or nonidentity of the two diseases is still open, but suggests that the relation between them may perhaps be compara-

ble to that known to exist between typhoid and paratyphoid fever.

TREATMENT.

With regard to treatment, no specific method has been devised, and the best that can be done is to put the patient to bed and provide him with good nursing; cold sponging is often beneficial during the pyrexial period and tends to diminish the delirium. In many instances transient or permanent relief, with diminution of stupor, followed the withdrawal of cerebrospinal fluid by lumbar puncture, especially when the fluid was under pressure. For the pain, numbness, and tingling of the limbs warmth is the best remedy, and the bedclothes should be raised on frames. Constipation is obstinate and often difficult to overcome, except by enemata, followed by such drugs as liquid paraffin or phenolphthalein. No hypnotics and no morphine or other preparation of opium should be given, and Dr. MacNalty deprecates the administration of hexamine in large and repeated doses: if it is prescribed the urine should be carefully watched for albumin. Daily cleansing of the mouth and antiseptic treatment of the nose and mouth should be carried out, and respiratory complications systematically looked for. Finally, the patient should be given to understand that his convalescence will last for at least six months after the beginning of the illness.

Resection of the Cecum and Ascending Colon.

J. Shelton Horsley, Richmond, in a paper on this subject, read at the recent meeting of the Southern Surgical Association, discussed the underlying causes of the abandonment of lateral intestinal anastomosis and the adoption of the end-to-end method. Cannon and Murphy have shown that in animals with the end-to-end method there was no stasis of food at the site of operation, whereas in lateral anastomosis peristalsis was abolished where the bowel was united. Dr. Horsley called attention to the triangular space at the mesenteric border of the intestine which is sometimes infected by the operator before it is closed, and to the necessity of cleaning the bowel ends with antiseptics before suturing. He believes that a valve should be made when the small bowel is united to the large. He described a new operation based on these principles in which the end-to-end method is used and the ileum

is projected into the end of the transverse colon and sutured in a manner similar to that used in his method of uniting the small bowel. In addition to this, in order to promote valve-formation and increase safety, there is placed a row of interrupted mattress stitches of cat-gut. To relieve gas-accumulation, he suggests an enterostomy after the Coffey principle. He reports seven cases which are all the operations of resection of the cecum and ascending colon that he has done for ten years. All of these patients recovered from the operation satisfactorily. Two of the operations were for intussusception in infants, two for severe intestinal stasis, and three for hypertrophic tuberculosis. In one of the cases of tuberculosis there was a resection of several feet of diseased ileum after the cecum and ascending colon had been removed, thus making a double resection in this case.

Since this paper was read Dr. Horsley has done another resection of the cecum and ascending colon, using the technic described in the paper including the valve formation and the enterostomy. At the present time (five days after operation), the patient is doing well. The pulse has not been over 104 since the operation. There has been no distention.

Traditional Fallacies about Tuberculosis.

In discussing some of the numerous fallacies about tuberculosis in an excellent paper in the *N. Y. Medical Journal*, Dr. Maurice Fishberg draws a sharp line between infection and disease. Not every infection is followed by disease; otherwise, over ninety per cent. of humanity would be affected with tuberculosis. To produce consumption, infection must take place in a peculiarly predisposed organism. In the belief that a person can be infected more than once the writer sees the most important fallacy. Infants or adults who have never come in contact with tubercle bacilli, savage tribes, or dwellers of large cities hailing from the country, almost invariably succumb when infected. On the other hand, people who come in daily contact with the disease are, as a rule, spared. They have been infected with tubercle bacilli before reaching adolescence and thus become immunized.

The rarity of the disease among hospital workers is not due to the prophylactic measures that have been taken during the past thirty years. In hospitals where no such precautions

were taken, and also in hospitals during the first half of the nineteenth century, no excessive morbidity or mortality from tuberculosis was observed.

Reports of people being infected by reading books from a public library, and other stories to that effect, cannot be substantiated. Further, in his long experience the writer never observed one case of tuberculosis transmitted from one consort to another. All these facts show clearly that all the strenuous and costly attempts at prevention of tuberculosis in adults which have been taken in recent years, are useless.

The white plague is still with us, presenting the same features as before the "campaign" was started. The mortality began to decline long before this useless fight was begun. The decline has been observed where no "campaign" has been waged. The vigorous "follow-up" system practised by the health department of New York City is not justified. If a tuberculous husband cannot infect his wife, we can assuredly conclude that a tuberculous workman cannot infect his neighbor in a factory. It is a senseless and cruel procedure to deprive a tuberculous man of the opportunity to work as has been done by stupid bureaucrats and the labor unions of New York City.

Coming to the hereditary factor, the writer points to recent investigations which show clearly that patients from a tuberculous stock suffer from the chronic type of the disease which runs a mild course; while those whose parents were free from tubercle bacilli, are more likely to suffer from the acute forms. In the belief that promptness in recognition and treatment will eradicate the disease, the writer sees another fallacy.

Autopsies show that more people recover from tuberculosis without treatment than suffer and perish from the disease. Further, it is fallacious to treat every sickly child as tuberculous; even when the tracheo-bronchial glands are enlarged, there is no reason for prohibiting school attendance or to institute prolonged and costly treatment. Recently discovered facts show that the little patients are rather benefited by mild infection; many authorities speak of "benevolent infection," which immunizes them against renewed exogenous reinfection.

When exploding the therapeutic fallacies, the writer expresses his belief that without the normal tendency of tuberculous lesions to heal,

the sanatoria would have to close their doors. Without treatment, five years after the onset of the disease, over fifty per cent. of sufferers from tuberculosis are alive and more or less efficient. Here, we have the cause of the many "cures" and numerous "new remedies" which are introduced annually. In conclusion, the writer warns against a class of remedies which is stated to work best in cases of osseous, articular and glandular tuberculosis. In these forms of disease, the prognosis is good; it is very rare that a patient dies from extrapulmonary tuberculosis.—(*Editorial—Criticism and Guide, February.*)

The Onion.

The scientific world is coming to recognize in the onion a thing of great food value; in it are found some of the most valuable and tonic mineral salts in the vegetable kingdom. Onions are supplied raw to the troops in France. People always ate onions to break up a cold. Cooked onions are sedative and laxative. Onions are known as a cure for insomnia and are useful in rheumatism. Nothing will relieve acute bronchitis and dyspnea so quickly as the old-fashioned onion poultice. Onions are easily digested, nourish, stimulate the appetite, soothe the nerves and act as a mild diuretic. They contain sulphur and other elements which act as intestinal antiseptics.—(*Ibid.*)

The Eye And Aviation.

Dr. W. H. Wilmer, of Washington, D. C., Colonel in the U. S. Army, makes the following observations in regard to the eye and aviation:

That good muscle tone is necessary.

That increased visual acuity might possibly occur under three conditions:

1. In Europe, where a certain amount of myopia is allowed, there could be an increase of sight in the air owing to a relaxation of the muscle of accommodation.

2. In mild degrees of toxic amblyopia, such as is produced by tobacco, there is a certain amount of anemia of the optic nerve. In these cases, there might be, during a flight, an increase of visual acuity from the congestion of the intra-ocular tissues.

3. Objects in a rarefied atmosphere are more clearly visible, and vision is improved for a

while by the concentration that ensues from the sense of isolation in flying.

The power of *stereoscopic vision* is not considered necessary by enemy nations, and even allied nations do not consider it requisite because its requirement is too stringent. However, its possession is a great asset.

Good color vision is essential for the pilot in order that he may readily differentiate the markings of planes and distinguish between those of the enemy and those of friends.

The question of protection of the eyes of the pilot from wind and bright light is a most important one. The protective goggles should be of good optical glass, free from irregularities, and should afford high transmission.—(*Archives of Neurology and Psychiatry.*)

Comment:—The sense of dizziness and insecurity that one feels on the top of a high building or by rushing water, does not exist in the air. Beneath, the earth lies serene and like a beautiful map. The cultivated fields are like bits of brown velvet, and the trees stand out like the Noah's Ark trees of our childhood. It is true that the earth does rush toward one in a nose dive, that it drifts away in a rapid ascent, and that it playfully tilts up in banking, but one's isolation lends a feeling of stability and security. Were it possible to eliminate the whirl of the motor, one would experience the feeling of a "peace that passeth understanding."

The Ear And Aviation.

Lt. Col. Eugene R. Lewis, M. C., Dubuque, Iowa, says, it is apparent that in flying motion takes on a much greater importance as regards potential safety or disaster for the individual than it possesses on the ground, and that motion-perception is commensurately of greater importance in the air than on the ground.

Regardless of the actual percentages which would express the shares of vision, deep sensibility, and vestibular and tactile sense in the total of motion-sensing on the ground, it is established that three of these four are reduced in efficiency by conditions incidental to flying, and the fourth, vestibular sense, is not so reduced, and is therefore of relatively increased importance. It follows that it is of prime importance to determine that men to be trained as fliers possess normal vestibular apparatus. So important is it for the flier to

possess normal vestibular acuity of motion-perception that no man should be permitted to begin training as a pilot who has not definitely shown normal reaction to vestibular tests.

This, however, does not end the otologist's responsibility in aviation. It must be borne in mind that physical deteriorations of the vestibular apparatus are always possibilities. Cases have been encountered in which men have gone into the service possessed of normal vestibular sense, and subsequently developed marked impairment of their vestibular function, seriously reducing their flying ability. Re-examination of all fliers at intervals is just as necessary to proper maintenance of the flying service as is the first examination of applicants for admission to this service.—(*Archives of Neurology and Psychiatry*).

War and Neurosis with some observations of the Canadian Expeditionary Force.

Captain Clarence B. Farrar, C. A. M. C., Psychiatrist, Military Hospitals Commission, Canada, after expounding this subject, comes to the following conclusions:

In summing up the effect of war upon the nervous system, we find:

1. Cases with gross lesions of nervous tissue, peripheral or central, present questions essentially surgical and neurological. Specific psychotic symptoms do not, as a rule, accompany them. In particular, such lesions do not give rise to the so-called traumatic neuroses.

2. Apparently any individual of sound constitution and inheritance may, at the front, exhibit minor, transitory, neurotic symptoms which are strictly reactive and may be classed as physiologic.

3. That the severe war neuroses may also, under certain circumstances, develop in persons apparently quite normal, has been asserted by competent observers; but the concept of normal is so elastic that a definite answer may never be forthcoming.

4. It remains true, however, that in the majority of severe war neuroses of all types there is evidence of a personal element of psychopathic potential.

5. The factor of exhaustion may lead to collapse or to acute transitory fatigue states, and if severe and protracted, to progressive physical deterioration. War experience has not established its etiologic importance in the neuroses or psychoses.

6. Psychic disturbance among troops may be (a) accidental, i. e., such as occur in the community generally and can not be attributed to service, and (b) reactive, those which stand in some specific relations to the conditions of army life.—(*Archives of Neurology and Psychiatry*).

Correspondence.

Unique Victim of Influenza.

February 27, 1919.

To the Editor:

I desire to place on record, through the *Virginia Medical Monthly*, the case of a little boy, age seven, who has had four separate attacks of influenza. At this writing, he is convalescing from the last spell. In my experience this is unique and I feel like making a record of same.

RAMON D. GARCIN, M. D.

Editorial.

Epidemic Somnolence.

At various times and in the countries of Europe, South America and the United States there have appeared cases of somnolence which are more or less epidemic in character and have been termed epidemic encephalitis or encephalitis lethargica. These cases have been marked by certain rigidity, cranial nerve involvement, occasional headache and vomiting and marked somnolence from which they could be aroused momentarily.

On March 8th, there appeared in the newspapers the report of an epidemic of some fifteen or more cases in Evanston, Ill., and other places in the neighborhood of Chicago. I had been puzzled for several weeks about some cases I had under observation which showed marked somnolence, and reported these cases to the State Board of Health after hearing of the cases in Illinois. A commission was appointed by the State Board of Health, consisting of Dr. Beverley R. Tucker, Chairman; Major E. C. Levy, Dr. J. McCaw Tompkins, Dr. S. W. Budd and Dr. McGuire Newton, to investigate the condition in Virginia, and this commission is actively at work.

I have had personally seven cases under observation. Dr. McGuire Newton has re-

ported a case, Dr. McCaw Tompkins has reported a case, a case has been reported from Petersburg, and there are several other suspicious cases under observation.

The disease does not seem to be particularly contagious nor very fatal as none of the cases has died. The somnolence comes on with a slight rise in temperature, an increase in intracranial pressure, various cranial nerve involvement, sometimes spasticity or automatism, but sometimes with neither. At times there is headache, nausea and vomiting. The patients can be aroused for a few minutes at a time but go off to sleep immediately. They lie in one position and have incontinence of urine and feces. Several of these cases have gotten well in a few days and others have been somnolent for many weeks. No specific organisms have been found. The commission is preparing a questionnaire to be sent all the doctors in Virginia and it is hoped that much information will be gained. So far there have been no deaths and, hence, no autopsy reports.

BEVERLEY R. TUCKER, M. D.

*Professor of Neurology and Psychiatry,
Medical College of Virginia.*

Evaluation of Symptoms.

The skill of the physician or surgeon rests, in no inconsiderable degree, in the power to evaluate the symptoms of disease. Cancer of the breast, for instance, has been publicly brought to the attention of the laity. Promptness of removal of all suspicious nodes and growths are advocated. Every woman, for instance, looks for such enlargements, few fail to find some. Shall the breast be removed; shall the nodule be extirpated? The surgeon is called upon to evaluate the harmless from the harmful.

Influenza has claimed many victims. The influenza patient has passed through the febrile stage of his attack; he has lost twenty per cent. of his body weight; he has become weak; he can not run up steps; he has vertigo; he has a fullness under the sternum; his lips and finger tips become livid; he coughs. These symptoms evaluated by the physician mean an alarm of extreme danger to the patient. If uninterpreted the patient may suddenly die from cardiac failure.

What of hiccoughing? What of dyspnea? What of pain in the abdomen? What of

"breast-pang?" What of vertigo? What of nausea? These are outstanding signs of disease which the physician must evaluate.

A. G. B.

News of M. C. Officers.

Lt. Col. Stuart McGuire, of this city, and several of the doctors who worked with him at Base Hospital, No. 45, have returned to this country. Upon his return, Dr. McGuire was ordered to Camp Dix, where he was mustered out. After a brief rest, he will resume his surgical work here.

Other doctors connected with this Hospital, whose return we are also glad to note, are Maj. W. L. Peple, Capts. Jos. F. Geisinger, R. H. Wright, James H. Smith, and Lt. B. F. Eckles, of this city. Major J. Garnett Nelson was left in charge of the part of the unit remaining in France.

Dr. Robert S. Preston, who was attached to Evacuation Hospital No. 10, located near the Argonne forest, has also returned to his home in this city.

Capt. Julian M. Robinson, Danville, Va., was ordered to the Rockefeller Institute, the middle of February, for a study of two weeks in the Carrel-Dakin method of treating wounds. The course was to be given by Dr. Carrel, who recently returned to this country from Neuilly, France.

Capt. Charles M. Edwards, of this city, after a special course at Walter Reed Hospital, Washington, has been transferred to Camp Dodge, Iowa, as director of the department of physiotherapy in the base hospital.

Dr. James M. Northington, formerly of this State, but more recently of Minneapolis, has been promoted to the rank of major, according to information received by friends of his in Mecklenburg County, this State.

Major J. W. Carroll, of Lynchburg, was recently ordered from Camp Dix to base hospital, at Camp Lee, Va.

Lt. W. B. Trower, Eastville, has received his honorable discharge and returned to his home.

Lt. S. B. Perry has been mustered out of service and returned to his home in Hopewell, Va.

Dr. Thomas G. Hardy, recently returned from overseas, has been mustered out, and he and his wife have gone on a Northern trip.

Capt. Lurty N. Harris, who is stationed at a camp in Arkansas, has been on a recent furlough to his home in Harrisonburg.

Dr. Eric A. Abernethy, Chapel Hill, N. C., we are informed, has been promoted from major to lieutenant-colonel.

University Graduates Large Medical Class.

The unusual has happened in the graduation of the medical class of the University of Virginia in March, the usual time being June. The conclusion of the course was hastened by war conditions which induced the University to omit the summer vacation in so far as the graduating class in the medical department was concerned.

Only two of the graduating class failed to reach the goal, sickness having interfered with their taking the final examinations.

The following graduates of the medical school of the University of Virginia, awarded their diplomas March 11, have received hospital appointments as follows:

King's County Hospital, New York—Dr. G. W. H. Cheney, of Rome, Ga.; William K. Harryman, of Barcroft, Va.; Walter W. Robinson, of West Point, Miss.; and Irwin W. Barrett, of Yazoo City, Miss.

Post-Graduate Hospital, New York—Drs. Burr Noland Carter, of Orange, and James W. Hinton, of Reedville.

Orange Memorial Hospital, Orange, N. J.—Dr. Roy G. Grant, of Pontotoc, Miss.

St. Luke's Hospital, New York—Dr. Francis Milton Massie, of Lexington, Ky.

Boston City Hospital, Boston, Mass.—Dr. George W. Simpson, of Virginia Beach.

Episcopal Hospital, Philadelphia—Dr. William B. Sims, Jr., of Maxwellton.

Lennox Hill Hospital, New York—Dr. Beverley Chew Smith, of Franklin, La.

Philadelphia General Hospital, Philadelphia—Dr. Harold Adams Sparr, of Memphis, Tenn.

Bellevue Hospital, New York—Dr. James B. Stone, of Hurt, Va.

St. Vincent's Hospital, Norfolk, Va.—Dr. William D. Tillson, of Mize, Miss.

Staten Island Hospital, New York—Dr. Walton Corbett Webb, of Banner, Miss.

University of Virginia Hospital—Drs. Roy M. Hoover, of Roanoke; James K. Gray, of Leesburg; Peter W. Rowland, Jr., of Oxford, Miss.; David Cole Wilson, of Chattanooga, Tenn.; Fletcher D. Woodward, of Hampton, and Isaac A. Bigger, Jr., of Rock Hill, S. C.

In addition to the above, the following also received diplomas but have not yet been assigned to hospitals: Drs. Richard Edward Albert, Portsmouth; William Marmaduke Brown, Paris, Ky.; Randolph Moore Gilliam, Newport News; James Alexander Wilkins, Jr., Lynchburg.

The Tri-State Medical Association of Virginia and the Carolinas

Held its twenty-first annual meeting in this city, February 19 and 20, Major Robert S. Cathcart, M. C., U. S. A., Charleston, S. C., presiding. The address of welcome in behalf of the State and City was delivered by Governor Davis, and, in behalf of the local profession, by Dr. Virginius Harrison. Dr. John P. Munroe, Charlotte, N. C., responded. Dr. Cathcart, in his presidential address, laid much emphasis on the need of standardization of service in hospitals, stating that "no hospital, however small, has a right to exist, unless it can meet certain minimum standard requirements." A number of technical papers were read and discussed. The members were tendered the usual banquet, and the ladies a luncheon and a theatre party. Special reservations were also made for the guests who wished to hear "Billy Sunday," who was holding a meeting in the city at that time.

Winston-Salem, N. C., was elected for the next place of meeting, and the following officers were elected: President, Dr. Robert C. Bryan, Richmond; Vice-presidents, Drs. Clifton M. Miller, Richmond; A. J. Crowell, Charlotte; A. R. Taft, Charleston. Dr. Rolfe E. Hughes, Laurens, S. C., was re-elected to the position of secretary-treasurer, which place he has so efficiently filled for a number of years.

Dr. and Mrs. Clifton Miller

Have returned to their home in this city, after a visit to New York City.

Dr. and Mrs. A. C. Swimley,

Winchester, Va., visited friends in this city last month.

Dr. and Mrs. Richard Woolling,

Pulaski, Va., were visitors in this city last month, the Doctor having come on professional business.

Dr. Lambert Resigns as Professor and Dean of College.

Dr. Samuel W. Lambert has tendered his resignation as professor of clinical medicine

and dean of the medical faculty of the College of Physicians and Surgeons, Columbia University, New York, to take effect June 30, 1919. No reason for his resignation has been assigned.

Dr. Emily C. Runyon

Has returned to her home in this city, after a visit to New York City, where she went to attend a dinner given by the American Women's Hospital Association to Dr. Caroline Purnell, recently returned from France. This hospital has been doing valuable reconstruction work in Europe. The gathering to meet Dr. Purnell in New York was a distinguished and representative one.

Catawba Sanatorium Enlarged.

A committee of the State Board of Health met early this month at Catawba Sanatorium, to inspect the new buildings and heating plant just erected at that place. They were approved and accepted. The new building with accommodations for 100 additional patients, will shortly be opened. Applications from doctors for the admission of patients are in order and, as heretofore, precedence will be given suitable cases.

Dr. Joseph E. Taylor,

Of Danville, Va., accompanied by his daughter, paid a visit in this city last month.

Editor of Hospital Journal Goes to South America for Methodist Centenary.

Hospitals are to be built in the five republics of South America, which, by interdenominational agreement, have been placed under its supervision, by the Methodist Episcopal Church as a part of its Missionary Centenary program the purpose of which is to raise \$120,000,00, in connection with the Southern Branch of the denomination for world upbuilding and the extension of missionary work.

There is at present not one hospital in the entire South American continent under the direction of any American Mission Board. There is one union dispensary in Rio de Janeiro—that is all.

The Methodist Foreign Mission Board has engaged Miss Charlotte A. Aikens, editor of the Trained Nurse and Hospital Review (New York) to tour Argentina, Uruguay, Chile, Bolivia and Peru to study the needs of the field and the conditions which prevail there.

After her report has been received the number and location of hospitals and health stations to be built in the five republics as part of the centenary program will be announced.

Miss Aikens, after a postgraduate course in nursing at Polyclinic Hospital, New York was in succession, superintendent of the Sibley (Methodist Episcopal) Hospital in Washington, D. C., of the Iowa Methodist Hospital in Des Moines, and of the Columbia Hospital in Pittsburgh. She is known as a writer of text books on hospitals and nurses' training. She has been given a leave of absence by the Trained Nurse and Hospital Review to make the South American trip for the Methodist Missionary Centenary.

Dr. James T. Leftwich,

Recently of Lawton, W. Va., is now located at Highland Springs, Henrico County, Va., for the practice of his profession. Dr. Leftwich formerly made his home in this city and was a graduate of the Medical College of Virginia. His many friends will be glad to welcome him in our midst again.

Dr. and Mrs. Jas. Weldon Smith

Have returned to their home in Farmville, Va., after a short visit to this city.

Dr. and Mrs. B. B. Wheeler,

Clifton Forge, Va., recently spent a short time in Baltimore, Dr. Wheeler having been called there on professional business.

Dr. Andrew J. Nelson,

Formerly of this State, but who has made his home for some years in Seattle, Wash., visited relatives in this city last month. He was recently elected president of the Washington State Board of Medical Examiners.

Disability From Tuberculosis Claimed by Large Number.

Disability claims on account of tuberculosis, filed with the bureau of war insurance, are at present about forty per cent. of the whole number. The question of what to do with the men incapacitated by this disease is one of the major problems facing the Federal board for vocational education.

Dr. T. B. Kidner, who inaugurated the Canadian system of rehabilitation before the United States entered the war, and who was loaned the Federal board by the Canadian government,

states that it is becoming more and more the opinion of students of this disease that men affected with tuberculosis may work in their old trades and in familiar surroundings, provided the work is not too arduous and the environment is suitable. "If possible, the work should be done largely in the open air, and it would be to the tuberculous man's advantage if he could work independently, choosing his own hours and taking a day off occasionally when he finds his strength failing." If he cannot go back to his former work, there are other things open to him, such as market gardening, fruit growing, bee-keeping, dairying, etc. He might also work in the transport trades, wood carving, carpentry, brick-laying, or even clerical work, if conditions are suitable.

Dr. James H. Smith,

Of this city, recently returned from France, addressed the Richmond Nurses' Club on March 6th. He told of some of the experiences "over there" of Base Hospital No. 45, with which he was connected.

Dr. Charles E. C. Peyton.

Pulaski, Va., was elected trustee of the Elks Lodge in that place, at a recent meeting.

Nurses Graduate.

Graduation exercises of the nurses' training school of Winchester, Va., Memorial Hospital, were held early this month in the Handley Library lecture hall of that place. Three nurses were awarded diplomas, the presentation being made by Dr. Hunter H. McGuire. Major B. M. Roszel, U. S. A., spoke on hospital work in France, and an address was also made by R. Gray Williams.

The Harrison Act,

As amended by the new War Revenue Act, will be mailed postpaid to any druggist, physician, dentist or veterinarian who will send a postal request therefor to "Mailing Department, Parke, Davis & Co., Detroit, Mich." Please observe directions strictly.

Dr. Brodie C. Nalle,

Charlotte, N. C., was a recent visitor at the home of his parents in Culpeper, Va.

Dr. Hugh H. Trout,

Roanoke, Va., who has recently returned from France, opened the Jefferson Hospital, the first of this month.

Dr. and Mrs. Mark W. Peyser

Returned to their home in this city about the middle of February, after an extended visit to Atlantic City.

Married—

Dr. E. C. Cobb, Penola, Va., and Miss Isaline Perkins, Richmond, recently.

Dr. William Alexander Simpson, of this city, but at present lieutenant in the U. S. Navy, and stationed at the Naval Hospital, Portsmouth, Va., and Miss Susan Ann Zollicoffer, of Weldon, N. C., March 1.

Dr. Robert A. Warren,

Hot Springs, Va., had the misfortune to have his residence and office destroyed by fire on February 22.

Get A Full-Time Health Officer.

Do you need a Health Officer, School Medical Inspector, Laboratorian, or other public health worker? Many well-trained sanitarians are returning to us from the Army Medical and Sanitary Corps. It is just as necessary to keep our people "fit to work" as it was to keep our soldiers "fit to fight."

Write your needs to the free Health Employment Bureau of the American Public Health Association, Boston, Massachusetts. State type of position and salary offered. No charge for service.

Joint Influenza Committee.

A Joint Influenza Committee has been created to study the epidemic and to make comparable, so far as possible, the influenza data gathered by the Government departments. The members of this committee as designated by the Surgeon-General of the Army, the Surgeon-General of the Navy, the Surgeon-General of the Public Health Service, and the Director of the Census, are; Dr. William H. Davis, chairman; and Mr. C. S. Sloane, representing the Bureau of the Census; Dr. Wade H. Frost and Mr. Edgar Sydenstricker, of the Public Health Service; Colonel D. C. Howard, Colonel F. F. Russell, and Lieutenant Colonel A. G. Love, United States Army; Lieutenant Commander J. R. Phelps and Surgeon Carroll Fox, United States Navy.

Mr. and Mrs. A. Murat Willis,

Of this city, have recently been enjoying a trip to New York City.

Dr. John R. Blair,

Of this city, announces that, beginning April 1, his practice will be limited to Diseases of Women and General Surgery.

New Hospital For Pulaski, Va.

The children of Mrs. Bentley K. Stearnes, of Pulaski and Newport News, Va., have given their attractive summer home property, in Pulaski, to that city, to be used as a hospital, as a memorial to their mother. It will be known as the Bentley K. Stearnes Memorial Hospital. The site of the home is most desirable and is well adapted for the purposes of a hospital.

Dr. W. Herbert Lewis,

Lawrenceville, Va., enjoyed a trip to New York last month.

Dr. John Staige Davis,

Of University, Va., was a recent visitor at the home of Dr. John Randolph, Arvonja, Va.

Dr. M. E. Brydon,

Of the State Board of Health, in accordance with a law enacted by the last State Legislature, is giving the seniors at the Harrisonburg, Va., State Normal School, a short course in school hygiene, emphasizing especially the detection of diseases and deficiencies in sight and hearing.

National Organization for Public Health Nursing.

In figures brought out by the draft, it was found that four per cent more city boys than country boys, from selected groups, were rejected in the draft because of physical disqualification. According to the Department of the Census, the country death rate is lower than that of the city, but it has increased since 1910, while that of the city has been lowered.

The Children's Bureau states that country children are more liable to fall victims to children's epidemics than are the boys and girls of the cities. Babies under a year of age have a better chance to live in the large cities than in the country.

To overcome this increase in death rate in the country, an appeal is being made for an extension of the U. S. Public Health work in rural districts. Secretary Houston states that

country districts must have "the advantages of modern hospitals, nursing and specialized medical practice."

The National Organization for Public Health Nursing, 156 Fifth Avenue, New York City, is planning ways to increase the number of public health nurses with ability and training to meet the rural problems. Rural districts interested in securing such district or public health nurses should communicate with the above organization.

The Eugenics Association Wants to Fight Race Suicide

And has proposed to the Roosevelt Permanent Memorial National Committee, that a "Roosevelt Institute of American Family Life" be developed in connection with the Eugenics Record Office of the Carnegie Institution at Washington. The plan calls for this institute to be situated in the town of Oyster Bay, and states that its aim shall be to "strive to advance those ideas of responsible and patriotic parenthood for which Theodore Roosevelt so valiantly battled."

"Sleeping Sickness."

If, as the old saying goes, "There's nothing new under the sun," there always seems to be something ready to attract anew the attention of the medical man. This time, it is "epidemic Somnolence," or lethargic encephalitis. A selection copied in this issue of the *Monthly* from *Public Health Reports* and an editorial by Dr. B. R. Tucker, cover this subject fully. Health officials and a number of doctors in this and other states are investigating and studying the disease from all possible angles. While they are agitating their brains, may those who are victims of this lethargy enjoy their rest.

Wanted—Second hand or slightly used instruments and appliances to equip a modern office. Reply promptly, quoting lowest cash prices, naming each article separately and stating price. Now is a chance for a quick sale. Address "S. T. U.," Cumberland C. H., Cumberland Co., Va.

Dr. Ira J. Haynes,

Of 3418 East Broad Street, this city, is retiring from practice and will sell or rent his

residence. He will also sell his Fulton office equipment. This is a splendid place for some one wanting an immediate practice. (Adv.)

Obituary Record.

Dr. John Chandler Wysor,

A prominent physician and surgeon of this State, died at his home in Clifton Forge, Va., February 23. His death was due to pneumonia, with which he was ill less than a week. He was born in Pulaski, Va., nearly sixty-five years ago, and studied medicine at the College of Physicians and Surgeons, Baltimore, from which he graduated in 1878. For a number of years he was chief surgeon of the Chesapeake and Ohio Hospital at Clifton Forge, but for about five years had devoted himself to private practice, although he was connected with the hospital in an advisory way. He has been practising in this State and was a member of the Medical Society of Virginia since 1898. The interment was in Dublin, Va., near his native home. Dr. Wysor is survived by his wife, a daughter and a son, Dr. Frank L. Wysor, with the medical corps of the army.

Dr. Julian Wylie Sloan

Was found dead in his bed at his home in this city on the morning of February 26, having died suddenly sometime within the night. Dr. Sloan suffered an attack of influenza in the Fall, and it is thought this illness must have affected his heart, although he had apparently recovered. His unexpected death was a shock to his many friends and relatives.

Dr. Sloan was a native of Chester, S. C., but studied medicine at the Medical College of Virginia, this city, from which he graduated in 1904. He was 40 years of age and unmarried. His mother, a sister and a brother survive him. His funeral was conducted with Masonic rites.

Dr. Joseph Boardman Moore,

A prominent physician of King William County, Va., died at his home at Ayletts, March 3, after a short illness. The interment was in Hollywood Cemetery, this city. Dr. Moore was 84 years of age. He received his academic education at Richmond College

and the University of Virginia and later studied medicine at Jefferson Medical College, Philadelphia, graduating in 1856. He was a vice-president of the Medical Society of Virginia in 1891, and a member of the State Board of Medical Examiners in 1893-4. He is survived by two daughters, his wife having died about five years ago.

Dr. Richard Henry Sims,

A widely known and respected physician of Brunswick County, Va., died at his home at Fitzhugh, February 21. He was born in Brunswick County, August 18, 1842, and, after completing his academic education at the Virginia Military Institute and the University of North Carolina, studied medicine at Jefferson Medical College, Philadelphia, graduating in 1867. He had been a member of the Medical Society of Virginia since 1901. His widow and several daughters survive him.

Dr. James Tyson,

Philadelphia, renowned as teacher, author and physician, died at his home February 21, aged seventy-seven. He graduated in medicine from the University of Pennsylvania in 1863, and was continuously connected with the teaching faculty of that school from 1876 to 1910, at which time he was made emeritus professor. Dr. Tyson was one of the best known medical men in this country and was identified with numerous medical associations, having been president of several, including his State medical association.

Maj. Joseph James Kinyoun, M. C..

Washington, D. C., died at his home in that city, February 14, aged fifty-eight years. He took his medical diploma from Bellevue Hospital Medical College, New York, in 1882. For several years, he was professor of hygiene, bacteriology and pathology in Georgetown University, Washington. He was the founder and first director of the U. S. Hygienic Laboratory. Dr. Kinyoun entered the service of his country in the present war and did pathological work at various camps in North and South Carolina. Early in last December, he was detailed as pathologist at the Army Medical Museum, Washington. He was one of the prominent doctors of Washington, and was identified with a number of local and national medical associations.

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K-Y ANALGESIC

This non-greasy, water-soluble local anodyne will enable you to ease your patient's pain and discomfort, while your internal or systemic medication is combating the cause of his condition.

The advantages, moreover, of relieving the pain of a facial neuralgia, an inflamed joint, or aching lumbar muscles without recourse to coal tar derivatives cannot fail to appeal to medical men.

K-Y ANALGESIC is a safe and effective adjunct that will daily grow more useful to the practitioner as the many opportunities for its effective use are realized.

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the best obtainable is called for—in its composition, in its quality and character, and above all, in its capacity to promote bodily vitality and strength. In

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the practitioner has at his command a restorative and reconstructive that justifies every confidence. Of the highest quality and constant uniformity—in spite of the drug market—and exceptional therapeutic efficiency, the use of "Grays" is a guarantee that the best possible results will be obtained in each and every case.

For over a quarter of a century "Grays" has been one of the most widely—and successfully—used remedies in atonic and debilitated conditions.

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Carminatives

"Grays" is now supplied in two sizes—a 6 oz. prescription size, and the original 16 oz. package.

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Atonic-Indigestion
Anemia
Catarrhal Conditions
Malnutrition
Nervous Ailments
General Debility

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The Management of an Infant's Diet

Constipation

The most important causes of constipation in infancy have a direct bearing upon the diet, and it follows that in attempting to correct this condition a readjustment of the diet should be the first consideration.

Suggestions for preparing food mixtures that will assist in establishing normal elimination of waste products of digestion are contained in a pamphlet which will be sent to physicians upon application to

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and all the Salicylic Acid in it
is made from the Natural Oil
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2 Minims Purified Guaiacol.
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PROPERTIES---Alternative--Nutritive--General Tonic.

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The success of "Grays" is based on its capacity to overcome functional debility and weakness and restore vitality and strength.

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The Management of an Infant's Diet

Percentage Index to
Formulas

Protein	Fat	Carb.	Page
1.25	1.00	4.50	16
1.25	1.75	4.50	30
1.50	.25	5.50	36
1.50	1.00	5.50	23
1.75	1.50	5.00	17
1.75	2.00	5.00	31
2.00	.50	6.25	37
2.00	1.50	6.00	24
2.00	1.75	5.50	18
2.00	2.50	5.50	32
2.25	.50	6.50	38
2.25	1.75	6.50	25
2.50	.50	7.00	39
2.50	2.00	7.00	26
2.50	2.25	6.00	19
2.50	3.00	6.00	33
2.75	2.50	6.75	20
2.75	2.50	7.25	27
2.75	3.25	6.25	34
3.00	.75	7.50	40
3.00	2.75	7.00	21
3.00	2.75	7.50	28
3.25	.75	8.25	41

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Oil Gaultheria (Natural)	-	-	-	-	gtts. iil.
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The
Management
of an
Infant's Diet

DIARRHEA

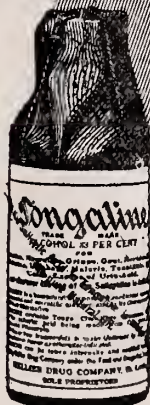
The importance of nourishment in intestinal disturbances that are so common during the warm weather is now recognized by physicians, and it is also appreciated that the nutrition furnished must be somewhat different than the milk modification usually supplied to the normal infant.

Food elements that seem to be particularly well adapted, mixtures that are suitable to meet the usual conditions, and the general management of the diet, are described in our pamphlet—"The Feeding of Infants in Diarrhea"—a copy of which will be sent to any physician who desires to become familiar with a rational procedure in summer diarrhea.

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50 per cent. Best Grade Cod Liver Oil.
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 $\frac{1}{8}$ Grain Iodide Manganese.
2 Minims Purified Guaiacol.
2 Minims Creosote Carbonate.

PROPERTIES---Alterative--Nutritive--General Tonic.

INDICATIONS---Tubercular and Bronchial Diseases--Scrofula--Rheumatic Gout and Neuralgia--Glandular Swellings--Anaemia.

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In Gastric and Intestinal Troubles, in Febrile Conditions, in Wasting and Debilitating Diseases and before and after Surgical Operations when the Stomach is Rejecting Food and it is Essential to Conserve the Vital Forces, Valentine's Meat-Juice demonstrates its Ease of Assimilation and Power to Restore and Strengthen.

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Virginia Medical Monthly



Published
Middle of Each Month

Issued as *Virginia Medical Semi-Monthly*,
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Established April, 1874,
By Landon B. Edwards, M. D.

OFFICIAL ORGAN OF THE MEDICAL SOCIETY OF VIRGINIA

Forty-Ninth Annual Session, Richmond, October 22-25, 1918

VOL. 45, NO. 4
WHOLE NO. 793

RICHMOND, VA., JULY, 1918

\$2.00 A YEAR
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CHARLES M. EDWARDS, M. D., Managing Editor
Richmond, Va.

Published with the collaboration of the Publication Committee of the Medical Society of Virginia

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promptly as you remove their
cause. In the meantime—

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locally "rubbed in," will usually
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(Formula of Dr. John P. Gray)

enables the earnest physician to combat with gratifying success many of the inevitable tendencies to nervous depression and neurasthenia.

"Gray's Tonic" has no contraindication of age or season.

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Management
of an
Infant's Diet

A Temporary Diet in Summer Diarrhea

Mellin's Food . . . 4 level tablespoonfuls

Water (boiled, then cooled) . 16 fluidounces

To be given in small amounts at frequent intervals.

Each ounce of this mixture has a food value of 6.2 Calories and furnishes immediately available nutrition well suited to spare the body-protein, to prevent a rapid loss of weight, to resist the activity of putrefactive bacteria, and to favor a retention of fluids and salts in the body tissues.

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Tongaline
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is made from the Natural Oil
and not from Coal Tar.

No Imitation
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can possess the same beneficial properties
or give the same satisfactory results as
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In Dysuria-Albuminuria

In Irritable and Weak Bladder Conditions

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Salol, (U. S. P.)	-	-	-	-	gr. ii.
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Even Consumptives will take it for many months
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Formula of Dr. John P. Gray)

A tonic of broad application.

**Notably effective in all
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conditions.**

**No contraindication of age or
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**Effective
Prompt
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DIARRHEA OF INFANTS

Three recommendations are made—

Stop at once the giving of milk.

Thoroughly clean out the intestinal tract.

Give nourishment composed of food elements capable
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A diet that meets the condition is prepared as follows:

Mellin's Food	4 level tablespoonfuls
Water (boiled, then cooled)	16 fluidounces

Feed small amounts at frequent intervals.

It is further suggested:—As soon as the stools lessen in number and improve in character, gradually build up the diet by substituting one ounce of skimmed milk for one ounce of water until the amount of skimmed milk is equal to the quantity of milk usually given for the age of the infant; also that no milk fat be given until the baby has completely recovered.

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PREScribe IT!



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In Dysuria-Albuminuria

In Irritable and Weak Bladder Conditions

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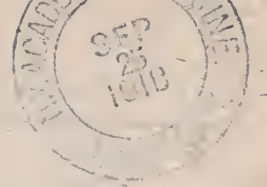
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is the "keynote" of the hour. The inevitable worries and burdens due to war conditions place an extra tax on the nervous system—especially during the heated season.

The routine use of

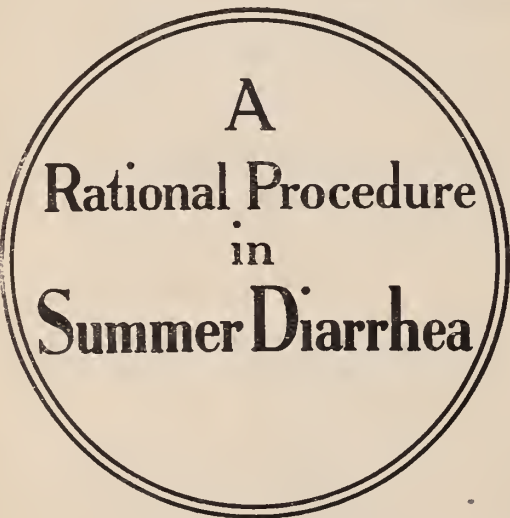
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in the care of your patients suffering from nervous exhaustion, will help you to conserve their vitality and strength.

Try it in some bothersome case of neurasthenia or mental depression and note its gratifying effects

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135 Christopher Street, New York



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For Infants of any age

Mellin's Food

4 level tablespoonfuls

Water (boiled, then cooled)

16 fluid ounces

Give one to three ounces every hour or two, according to the age of the baby, continuing until stools lessen in number and improve in character.

Milk, preferably skimmed, may then be substituted for water—one ounce each day—until regular proportions of milk and water, adapted to the age of the baby, are reached.

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Debility, Exhaustion and Anaemia.

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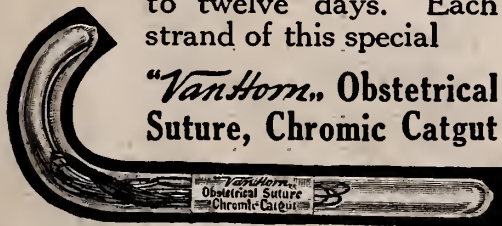
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For patients who are suffering from
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(Formula Dr. John P. Gray)

has no superior as a safe and reliable aid. The use
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bodily function, improves the nutrition, tones the
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Prepared in 6 and 16 ounce bottles

The Purdue Frederick Company

135 Christopher Street
New York City

The
Management
of an
Infant's Diet

Malnutrition, Marasmus or Atrophy

Mellin's Food	} Analysis:	Fat49
4 level tablespoonfuls		Protein	2.28
Skimmed Milk		Carbohydrates	6.59
8 fluidounces		Salts58
Water	}	Water	90.06
8 fluidounces			100.00

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UNIFORMITY**

• **Rheumatism
Neuralgia
Sciatica
Lumbago
Tonsillitis
Grippe, Gout
Heavy Colds
Excess of
Uric Acid**



Tongaline Liquid

Four-ounce Bottle Eight-ounce Bottle Five-pint Bottle

**Tongaline Tablets, Tongaline and Lithia Tablets
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Box, Fifty Tablets

Box, One Hundred Tablets

SAMPLES ON APPLICATION

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Indicated in Typhoid and other slow fevers, Dysentery, Chronic Diarrhoea and gastro-intestinal troubles.

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Virginia Medical Monthly

*Published
Middle of Each Month*

*Issued as Virginia Medical Semi-Monthly,
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*Established April, 1874,
By Landon B. Edwards, M. D.*

OFFICIAL ORGAN OF THE MEDICAL SOCIETY OF VIRGINIA

Forty-Ninth Annual Session, Richmond, postponed indefinitely on account of Influenza

VOL. 45, NO. 8
WHOLE NO. 797

RICHMOND, VA., NOVEMBER, 1918

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CHARLES M. EDWARDS, M. D., Managing Editor
Richmond, Va.

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Articles Solicited from Every Section

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RHEUMATIC and NEURALGIC ILLS

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K-Y ANALGESIC

This non-greasy, water-soluble local anodyne will enable you to ease your patient's pain and discomfort, while your internal or systemic medication is combating the cause of his condition.

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The Management of an Infant's Diet

In extreme emaciation, which is a characteristic symptom of con-
ditions commonly known as

Malnutrition, Marasmus or Atrophy

it is difficult to give fat in sufficient amounts to satisfy the nutritive needs; therefore, it is necessary
to meet this emergency by substituting some other energy-giving food element. Carbohydrates in
the form of maltose and dextrins in the proportion that is found in

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are especially adapted to the requirements, for such carbohydrates are readily assimilated and at
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Management
of an
Infant's Diet

Malnutrition, Marasmus or Atrophy

Mellin's Food	} Analysis:	Fat49
4 level tablespoonfuls		Protein	2.28
Skimmed Milk		Carbohydrates	6.59
8 fluidounces		Salts58
Water	}	Water	90.06
8 fluidounces			100.00

The principal carbohydrate in Mellin's Food is maltose, which seems to be particularly well adapted in the feeding of poorly nourished infants. Marked benefit may be expected by beginning with the above formula and gradually increasing the Mellin's Food until a gain in weight is observed. Relatively large amounts of Mellin's Food may be given, as maltose is immediately available nutrition. The limit of assimilation for maltose is much higher than other sugars, and the reason for increasing this energy-giving carbohydrate is the minimum amount of fat in the diet made necessary from the well-known inability of marasmic infants to digest enough fat to satisfy their nutritive needs.

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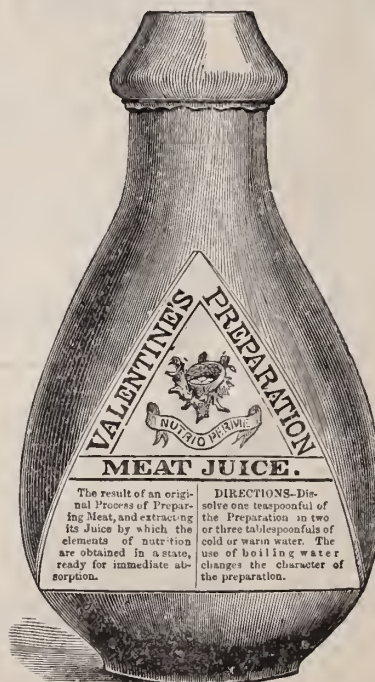
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on the table is "ONE OF
MY OWN FAMILY"

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The Management of an Infant's Diet

Carbohydrates

The fact that maltose has a high point of assimilation and therefore capable of being given in larger amounts than either lactose or saccharose leads many physicians to prefer maltose as the carbohydrate portion of an infant's diet.

Where this carbohydrate is desired it is important to understand that maltose is rarely if ever used alone, for maltose is available only in combination with various forms of dextrin. It is also important that, in advising the use of these carbohydrates, a product which is known to be made by the natural process should be specified. The natural process, which is similar to the changes that take place when grains are planted for reproduction, is the conversion of the starchy portion of wheat and barley by the natural enzyme—malt diastase—and in view of the results when in actual use this natural process is the most satisfactory method.

In conditions where a physician believes it is advisable to employ these carbohydrates it is of considerable advantage to select a product made by the natural process, for while such carbohydrates obtained by processes other than the slow and rather tedious action of malt diastase are of the same chemical formula, the effect when practically applied in infant feeding may show a marked difference and the results are likely to be far less satisfactory.

A MALTOSE AND DEXTRINS PRODUCT

that is obtained in the natural way with maltose predominating and that includes the protein of the grains used as well as the salts that are contained in the covering of the grains may be readily secured by prescribing

Mellin's Food

There is but one

Tongaline

**and all the Salicylic Acid in it
is made from the Natural Oil
and not from Coal Tar.**

**No Imitation
No Substitute
No extemporaneous Prescription
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Pneumonia and Influenza.

E. Williams, Medical Officer in Charge of Troops, Flint, Mold, Wales: "The VALENTINE'S MEAT-JUICE for the soldiers under my care I have used with great success in cases of Pneumonia and Enteric Fever. Its restorative power is remarkable."

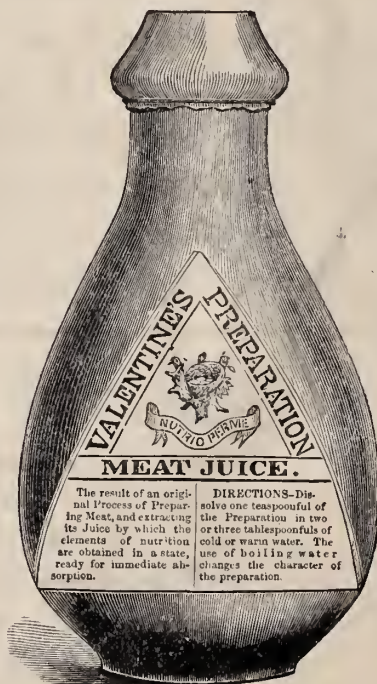
Cavalier Dr. Enrico Ballerini, Late Surgeon to the Hospital of Rome, Italy: "I have used VALENTINE'S MEAT-JUICE in the treatment of patients and also personally after having been ill with Influenza, and I must say it is an excellent tonic in conditions of great organic weakness. I have prescribed it with the greatest satisfaction for convalescents and invalids restricted to a liquid diet."

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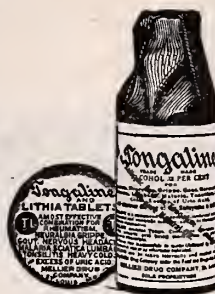
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